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ORIGINAL COMMUNICATIONS.

A METHOD OF DETECTING LACERATIONS OF THE CERVIX UTERI POST PARTUM.

By JOHN BARTLETT, M. D.

(Read before the Chicago Medical Society, Aug. 3rd, 1885.)

My object in addressing the society this evening is to suggest a way and a time in which laceration of the cervix uteri may be easily and certainly detected soon after its occurence. Directly after delivery, if the fingers be introduced deeply into the vagina up to the contracted os uteri internum, and then carried in any direction a little outwardly, the flabby and floating ring formed by the non-contractile cervix may be felt, as Guillemeau described it, three hundred years ago, "like a section of large intestine." By very carefully following the entire circumference of this ring, an existing rent may be discovered. But this examination is attended with some difficulties. The patient is exhausted with her labor, and fatigued with our attentions, and just now, since "it is all over," longing for rest. She is impatient of, and perturbed by, this post-factum inquiry. Her state of mind, and possible expression

of complaint, are apt to render an examination, which the physician cannot regard as absolutely necessary, less exact and thorough than it would be otherwise. And then, the soft. and floating margins of the cervix uteri have often somewhat of an intangible feel, if I may so express myself, gliding past the fingers like a detached clot of blood, and occasionally, in some portion of their circumference, passing out of satisfactory reach.

On these accounts it is not surprising to hear an obstetrician say that he cannot tell whether the post partum cervix is lacerated or not. Now, I desire to teach those who may not be familiar with the short lesson that I propose to impart this evening, how to discover a cervixal laceration after labor. The error of accoucheurs who fail to recognize such a condition is that they do not make their observation of the suspected cervix at the proper time. They examine the neck actually as we have just done mentally—after the clearance of the uterus. The favorable moment for the examination—and this is the gist of my remarks—is just as the placenta is beginning to occupy and distend the cervix. The collar of flesh is then not floating and uncertain, but on the stretch, expanded, forming a distinct ring easily followed in its entire circumference. At this moment, then, just as the cervical tube is being rendered tense by the placental mass, any laceration in it may be detected with ease and certainty.*

North Clark Street.

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*Dr. Bartlett illustrated his remarks with earthenware models, turned by a potter under his immediate direction.

OLEATE OF MANGANESE.

By FRANKLIN H. MARTIN, M. D.
Fellow of the Chicago Gynecological Society.

(Read before the Chicago Medical Society, August 3rd, 1885.)

There is little doubt left in the minds of therapeutists in regard to the value of manganese as a remedy in certain forms of menstrual trouble. The remedy, in the form of the permanganate of potash, was first brought to the attention of the profession by Ringer and Murrell of London in the spring of 1883. They recommended the drug in functional amenorrhœa. Soon after their article appeared in the London *Lancet*, I commenced experimenting with the same preparation, and published the result of my investigation in the *New York Medical Record* for September 29th, 1883. That was the first, to my knowledge, that anything on the subject was published in this country.

In the course of my experiments, acting upon the theory that the drug produced menstruation by stimulating the menstrual organs, I was induced to give the remedy in menorrhagia, and metrorrhagia dependent upon an *atonic* condition of these organs. I found to my gratification that it acted equally as well in these conditions as in the opposite. In my published reports I have always been careful to emphasize this point, because it is a demonstration of the manner of action of the drug, *i. e.* by *stimulating* the menstrual organs. I have had unmistakable evidence of its action as a menstrual stimulant, in amenorrhœa, menorrhagia and metrorrhagia. I have obtained very gratifying results from its administration in the irregularities incident to approaching menopause. I have also received very gratifying letters from a large number of physicians in this country, containing confirmatory proof of its efficacy in one or more of the several conditions mentioned

above. The remedy has been favorably commented upon by THOMAS of New York, who said: "I think it is the best emmenagogue which has yet been discovered." Dr. Roberts Bartholow not only recognizes its applicability in amenorrhœa, but also its power as a general menstrual stimulant, making it equally efficacious in other forms of menstrual difficulties, dependent upon an *atonic* condition. He said: "The same power which can so stimulate the sexual functions must, when exerted in other directions, prove equally effective."

After publishing my second report on this subject, I received a letter from Sydney Ringer, of London, in which he expresses his gratification at the result of my experiments, and in which he says: "Like you, I have found the permanganate most useful in *atonic* conditions." And further, he says: "I was quite prepared to learn that the permanganate is useful in menorrhagia.

Since there is no longer any doubt about the great value of manganese in these distressing menstrual difficulties, the next formidable problem for the therapeutists to solve, is—how shall it be administered? The permanganate of potash, the original preparation used for experiments, and administration, in any form, is liable to act as an irritant to the stomach, and is very objectionable to many on that account. It has in many ingenious ways been made into pills, but as these pills must of necessity have for their basis kaolin, or some other inorganic substance, they are not satisfactorily dissolved and absorbed. The compressed tablets of Wyeth & Brother, and others, are objectionable in many cases of irritable stomach, because of the irritating, undiluted drug coming in direct contact with its mucous membrane. The binoxide of manganese has, on account of its insolubility, proved to be inert. Therefore because of the many difficulties of administration this valuable

remedy has not met with the reception by the profession that is its due.

While having this fact under consideration, it was suggested to me by Dr. Lewis L. McArthur, of this city, that an oleate of manganese might be prepared. Inasmuch as the method of prescribing other popular drugs in the form of oleate is becoming quite universal, the scheme appeared feasible. An oleate of manganese, was prepared for me by Mr. Edward Kreyssler, a very competent chemist with the firm of Forysth & Schmid, of this city. I am indebted to Mr. Kreyssler for the following account of the *method of preparation, and of its physical and chemical properties.* The oleate of manganese was prepared as follows: A solution of sulphate of manganese was made in distilled water, and to it a solution of sodium oleate was added. On mixing these two solutions gradually, and with constant stirring, a precipitate of oleate of manganese resulted. This precipitate, upon heating, changed to a putty-like mass. This was washed several times with warm distilled water, to remove the sodium sulphate, and the resulting putty-like mass was the pure oleate of manganese.

It is of a light gray color, having a pinkish hue, of a sweet musty taste, and peculiar clay-like odor. It is sparingly soluble in alcohol, and soluble in ether, chloroform, olive oil, and oleic acid.

THE METHOD OF APPLICATION.—Of a twenty per centum solution of the oleate in oleic acid, one half of a drachm to a drachm is applied to the abdomen of the patient, and its absorption promoted by friction, produced by vigorous rubbing of the surface with the palm of the hand or with the fingers. The rubbing should be continued until the oil has entirely disappeared by absorption.

In cases where it is found impracticable to apply it to the

abdomen on account of tenderness, it may be applied to the back or the inner surfaces of the thighs.

In *amenorrhœa* it should be applied, if possible, every night for a week preceding the expected menstrual period, or at the time the menstruation is due, and until it makes its appearance. In cases of *menorrhagia* or *metrorrhagia* it can be applied in smaller quantities, every night, until the desired effect is produced.

REPORT OF CASES.—At the present writing, I have but four cases to report. I have prescribed the preparation in fifteen (15) cases, all but four (4) have as yet failed to report to me.

In the four that I have been able to keep under observation, the result has been very gratifying. Two of the cases were amenorrhœa in young women, one irregular menstruation in early married life, one irregularity incident to approaching menopause.

CASE 1. Had passed two menstrual periods and the remedy was prescribed about one week after the last menstruation was due. On account of abdominal tenderness the oil was applied to the back. One drachm of a twenty per centum solution was applied for three consecutive nights, at the end of which time menstruation appeared and lasted four days.

CASE 2. Was that of a young girl 19 years of age, whose menstrual flow had always been irregular. The cause I attributed to an over-worked nervous system, the young lady having just passed a long anxious siege of college examinations. She had passed two or three menstrual periods without a show, and had lost account of when the next period was due. The oleate was prescribed. It was applied four nights to back and abdomen, by a competent nurse, when the most natural menstruation the young lady had ever experienced commenced.

CASE 3. A married woman, age 42, who had always been healthy until six months ago. Since that time she has been suffering with irregular menstruation. At one time it did not appear for two months, the suffering from "pressure" in the meantime being very severe. On the other hand, at times the flow had been excessive, and the result was almost complete exhaustion. At the time the oleate was prescribed, the patient was suffering from distressing backache, headache and pelvic pressure, from suppression. At this time her menstruation, was two weeks over due. A drachm of the twenty per centum solution of the oleate was used two nights, thoroughly applied by a nurse, when the flow appeared suddenly, and all the distressing symptoms of former menstruations were absent.

CASE 4. A dispensary patient, married, age 25 years, had had no children. She had not menstruated for two and one-half months. No signs of pregnancy further than the suppression of the menses. The patient was poorly nourished. She had "caught cold." By physical examination nothing was found to account for this condition of affairs, except a small, and poorly developed uterus. The patient was ordered to use the oleate, and directed how to use it. She returned in one week menstruating. The flow had appeared three days after using the medicine.

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DOES TOBACCO IMPAIR SIGHT? *A Paper Read Before the Chicago Medical Society, August 3rd, 1885. By* W. FRANKLIN COLEMAN, M. D., M. R. C. S., *England. Chicago.*

Mr. President and Gentlemen: Your secretary has suggested that every candidate for, or newly-elected member of, this society should be obliged to read a paper as an initiation. Should you also think it a fit and proper obligation, a sufficient excuse for this youthful conduct is not wanting.

To consider the physical effects of a poisonous weed, food for neither man nor beast, yet consumed alike in every quarter of the globe, by savage and sage, saint and sinner, is a theme of no little consequence.

Tobacco belongs to the family solanaceæ, which claims such relations as hyoscyamus, belladonna, stramonium, and, curiously enough, the potato. Its important active principles are an alkaloid called nicotine, a volatile oil, nicotianin.

Von Brock says: "It is from smoking tobacco that nicotine poisoning chiefly arises—the smoke itself containing the nicotine. A great deal of it accumulates on the lower part of the pipe, and the remains of cigars are much more impregnated with it than parts fresh-smoked."

The observations of Claude Bernard, that nicotine at first produces contraction of the arteries, and later on the vessels become distended, agree with the views of Uspensky, who, from physiological researches, concludes that nicotine first stimulates then paralyzes the vasomotor centres.

From personal experience, and the literature at my command, I know of no more constant detrimental effect of the use of tobacco than more or less impairment of vision—so-called amblyopia.

The use of tobacco is so frequently associated with drinking

to excess that it is questioned by some whether tobacco alone ever produces defective eyesight; whether the alcohol is not the chief or only etiological factor. In England there is a general belief among surgeons that tobacco is the more frequent cause of the amblyopia, while in America alcohol is more generally thought to be the principal or only agent.

Dr. Webster, of New York, in an able paper reporting twenty cases of amblyopia from the abuse of alcohol and tobacco, remarks: "That the abuse of alcohol and tobacco alone, or of alcohol and tobacco combined, may produce impairment of vision, no physician acquainted with the subject will, I think, venture to deny. Some, however, doubt that tobacco alone ever causes impairment of vision, and indeed it is difficult to demonstrate that it ever does."

Dr. Webster apparently holds the above views so firmly that he quite overlooks the fact that two of his cases prove that tobacco alone does produce amblyopia, while there is not a single case to show that alcohol alone was the cause of impaired sight—for all who used alcohol also smoked to excess. Take, for example, case 7, C. McK., æt. 49; has smoked ten to fifteen strong cigars daily for ten years; *occasionally* drinks a glass or two of gin; V=1-16 each eye. Incipient atrophy of optic nerve. Case 12, æt. 60; sight failing over a year; has smoked a strong pipe most of his waking hours for more than forty years; has rarely tasted liquor; V=1-40 each eye; brick dust atrophy of both optic nerves; ordered to stop tobacco and return in a week; the vision in right eye doubled; in left all but doubled.

Observers unanimously agree that amblyopia is produced only by the *excessive*, not the *occasional*, use of alcohol or tobacco, or tobacco and alcohol combined. Hence, in the case of the "occasional drink," and in 12, the "rare taste" of liquor cannot be held responsible for the loss of sight.

So many competent observers believe in alcohol-amblyopia, I readily accept their view, but in my experience the opportunity for making out a case against alcohol is rare, as the tippler is almost invariably a smoker. The case against tobacco alone can be much more frequently proven, since it is not uncommon for an inveterate smoker to be a teetotaller, or to taste liquors but rarely.

The celebrated philanthropist, McKenzie, who was first to bring to public notice the effects of tobacco upon vision, wrote in his text-book of 1840: "I have already had occasion to repeatedly hint my suspicions that one of the narcotic acrids which custom has foolishly introduced into common use, namely, tobacco, is a frequent cause of amaurosis." More recently, such men as Wordsworth, Hart, Hutchinson, Forster, Hirschberg, Sichel, Luriero, Jackson, and a host of others, have given much attention to the effects of tobacco, and they maintain that it gives rise to impaired sight and even blindness.

Mr. Hutchinson, ever cautious, would not express an opinion in 1870, but remarked to me at Moorfields, in 1876, that he had come to think the effect of alcohol antagonistic to tobacco as a cause of amblyopia, unless the alcohol is taken in such excess as to produce degenerative effects of the system. He had seen amblyopia more frequently and more advanced in smokers who abstained from than in those who used alcohol. Dr. Berry, of Edinburg, holds a similar opinion.

In tobacco-amblyopia, the patient, usually a man past thirty, complains of gradual failure of vision; the defect, unless very considerable, being much the same in both eyes. The sight is generally described by the patient and surgeon as better in a dull light. Dr. Berry, after careful testing, concludes this is a mistake, having found the acuity of vision really less when the light is diminished. Central amblyopia is a very charac-

teristic symptom, direct vision alone, as a rule, being impaired, while the indirect is only slightly or not at all affected; hence, the person is enabled to get about without the least difficulty. Förster first drew attention to red-blindness, in the center of the field of vision, as a pathognomonic symptom. In the less severe cases, this central color scotoma may be recognized when a central blind-spot for white light or form cannot be detected. The color-blindness extends to the periphery of the field only in the more serious cases. The impairment of sight may occur with or without other symptoms of tobacco-poisoning of the brain, and so forth, such as loss of memory, headache, sleeplessness, loss of appetite, palpitation, etc.

The ophthalmoscope in the majority of cases, it is said, cannot detect any pathological change. When abnormal appearances are seen they are wholly confined to the optic disc. At first it may look smoky or hazy. This stage of hyperæmia is followed by decoloration of the temporal half of the papilla, which later extends to the whole disc and occasionally terminates in complete atrophy and blindness. Once I have seen the very rare condition, perivasculitis According to Hutchinson, the stages of the disease of the nerves occupy from four to twelve months.

In 1867 Mr. Hutchinson, reporting thirty-seven cases of primary white atrophy of the optic nerve, all that had come under his care during three years, attributed twenty-seven to the effect of tobacco. Dr. Green, of St. Louis, says a very large proportion of the cases of optic nerve atrophy, which have fallen under his observation, have been in cigar makers and workmen in the tobacco factories, who habitually use tobacco very freely by smoking and chewing.

Amblyopia is more readily produced by the strong tobaccos, such as the "Schag" of England. Chewing is more danger-

ous than smoking (Nettleship). Berry is disposed to think that the blindness very rarely occurs if smoking be only indulged in after a meal.

In functional cases, vision will be completely restored if tobacco is given up, and alcohol, should it be used in excess. If there be marked ophthalmoscopic changes in the nerve, the defect of vision may remain stationary, but, in my experience, vision has nearly always improved under treatment. Blindness very rarely results, perhaps only in case of progressive atrophy of the nerve.

Little is evidently known in regard to the pathology of tobacco amblyopia. The view of Leber, that there is an anomaly in the blood-supply to the superficial layer only of the optic nerve, seems, at the same time, to account best for the *central scotoma* and the generally favorable course of the disease; for, it will be remembered, the external optic nerve fibers are distributed to the center of the retina, while the inner fibres of the nerve supply the eccentric portions of the retina. Berry well maintains that the disease is essentially functional that even interstitial change in the nerve is not the direct cause of the amblyopia, in proof of which he cites the well-known fact that pallor of the disc remains even when vision recovers. The change in the nerve and the amblyopia, he attributes at once to vasomotor disturbance or other functional disorder.

In regard to treatment, the withholding of tobacco is an evident requisite. Opinion is divided as to the benefit of the hypodermic use of strychnia usually resorted to. If the strychnia is pushed to the point of toleration or spasm, usually requiring 1-10 grain three times a day, often 1-8 grain, occasionly 1-4 grain, I believe recovery is always hastened and often occasioned. The success of galvanic electricity claims more attention as a remedy. Dr. Bradford, of Boston, related

to me a case of atrophy of the optic nerve, from tobacco, in which the blind eye recovered useful vision by the use of chloride of barium, after strychnia, electricity, and all the usual remedies had failed.

Since I have more particularly recorded cases, I find in my note books, among 1,824 eye-patients, forty-six who had partial to total loss of sight, accompanied so far by conditions similar to those noticed in tobacco-amblyopia, as to present either no ophthalmoscopic changes in the eye, or else hyperæmia, decoloration or atrophy of the optic papilla.

These forty-six cases may be thus classified :

Males, 33 ; females, 13.

Cases referred to tobacco alone, 13.

" " " " and alcohol, 9.

" " " other causes, 24.

All the tobacco, and tobacco and alcohol cases, occured in males.

Of those referred to other causes, ten were males, fourteen females.

Cases in which there was hyperæmia, discoloration or atrophy of the disc :

Tobacco, males, 12 ; females, 0.

Alcohol and tobacco, males, 9 ; females, 0.

Other causes, males, 7 ; females, 11.

Cases which presented no ophthalmoscopic changes :

Tobacco, males, 1 ; females, 0.

Tobacco and alcohol, males, 0 ; females, 0.

Other causes, males, 3 ; females, 3.

In regard to the above, the notable absence of any case of pure alcohol amblyopia may be accounted for by the alcoholic patient being, invariably, a heavy smoker.

I must admit, females were not questioned as to the alcohol

or smoking habit, there being no reason to suspect them of such male virtues. Again, my experience of so large a proportion of patients as twenty out of twenty-one, who presented changes in the optic disc in contrast to the rule that no pathological changes are seen in tobacco-amblyopia, may be due to the advanced stage of the disease when first examined. This experience agrees, however, with that of Dr. Webster, who reports marked ophthalmoscopic changes in all of his twenty cases.

In illustration of tobacco-amblyopia I will refer briefly to four patients who were not addicted to drinking—and to one other.

J. T., age 44. Consulted me in February, '83, on account of defective sight, of eight months' duration. Vision, right eye $\frac{1}{3}$, left eye $\frac{1}{2}$. In reading, the right eye sees only the first part of a word, and the left only the latter part—temporal hemiopia.

Has smoked six pipefuls daily for the past fifteen years; health good. The temporal half of each optic disc is pale.

Advised to stop smoking, and strychnia prescribed.

Two months later, he remarked he had followed advice and the sight was quite restored.

CASE 2. H. O., age, 21. Came under my care December 28, '83. His sight has gradually failed during the past fifteen months, and at present he can barely distinguish light. No symptoms of brain or spinal disease. No history of syphilis or other poisoning, except tobacco. Health very good. Has for four years past smoked six to seven pipefuls of tobacco daily, and chewed one-fifth of a pound weekly.

There is advanced white atrophy of both optic papillæ.

Ordered 4 minims of a four-fifths per cent. solution of strychnia to be given hypodermically twice a day, and increased one minim daily—and tobacco to be discontinued.

Five weeks later: The strychnia has been increased to 1-5 of a grain, producing only occasional muscular spasm. As vision has not improved, galvanic electricity directed to be applied daily to the closed lids, temples and nape of the neck.

Repeat strychnia 1-12 of a grain, three times a day, by the stomach and increase the dose.

Three weeks subsequently, Feb. 27th, he is taking 1-5 of a grain of strychnia three times a day and having electricity applied.

The vision is now increased to 1-70 in each eye, and the patient is able to see his way in the street very well.

April 7th. Discharged with sight remaining the same. It is now reported that a good deal of smoking was slyly indulged in.

CASE 3. Nov. 25, '80. J. McKay, aged 31. Complains of failing sight for the past three months, which is now reduced to 1-17 in each eye. He began to smoke at eleven years of age, and for three years past has averaged ten pipefuls a day. Very rarely tastes liquor. Ophthalmoscopic examination.

Both optic discs are hyperæmic. Advised to give up tobacco, have temples cupped, and take K. I.

The patient returned in six weeks.

Has stopped smoking and gained twelve pounds in weight. Vision has improved from 1-17 to 1-5 in each eye.

The temporal side of each disc is now pale.

Jan. 25th. There now present white lines (of perivasculitis) at the margins of retinal vessels on and near the discs. Strychnia prescribed.

CASE 4. W. S., aged 24. Consulted me in October '79. Noticed nine months ago in school he could not read with the right eye; three months after observed the same defect in the left, but two weeks later could see to read fairly well. A week later still, the eyes again failed. Is anæmic and nervous, but

considers his health pretty good. Has smoked six to eight pipefuls daily from the age of fifteen until two years ago, and since then three to four pipes a day.

Right eye can count fingers within six inches only on the temporal side. Left eye vision=20-140.

Externally and internally the eyes appear normal.

Treatment.—Strychnia hypodermically twice a day. Patient discharged nine days with vision of right eye improved eight times and doubled in the left.

Allow me to cite a case which seems to confirm the view that alcohol counteracts the effect of tobacco:

C. M., aged thirty-one, relates, July, 12, '84, that his sight has been failing for six weeks. That he has smoked six to eight pipes a day for the past seventeen years, and has been a hard drinker for eight years, until three months ago, since which time he has abstained completely. The patient *volunteered* the remark, "I think stopping spirits suddenly caused my sight to fail." Vision had always been good up to six weeks ago (*i. e.*, six weeks after giving up spirits).

Treatment—Take strychnia, gr. 1-20, three times daily, and advised to stop smoking in preference to returning to spirits.

In six days vision doubled in both eyes. Take strychnia, gr., 1-16 *ter die.*

October 9th.—Vision of right eye has increased in three months from 1-10 to ½, and in left from 1-10 to ⅔.

Let us return to the question—Does tobacco impair sight?

Among the authors of text-books in my possession, who express their belief in tobacco amblyopia, are Scotch, American, German and French, viz: McKenzie, Wolfe; Gowers, Wells, Nettleship; Noyes, Williams; Stellwag, Schweigger, Greürfeld, Mittendorf; Mayer, De Wecker. The only two authors I know who dissent from the general view, are Carter and Lawson (English).

Mr. Carter quotes a letter from Dr. Dickson, of Constantinople, to the effect that the consumption of tobacco in that city averages three pounds weight per head, monthly, but amblyopia is a rare affection.

Dr. Hubsch, oculist, in Constantinople, also writes him, "I have never attributed amaurosis to the abuse of tobacco."

Mr. Carter adds, "I have obtained the same kind of negative evidence from Egypt and India, and in the face of it I do not attach much importance to the fact that several patients who have suffered from severe atrophy have been great smokers." The last statement is a little weakened when he adds, "If a patient who consults me on account of severe atrophy is a smoker, I always advise him to lay aside tobacco."

It may be maintained by some that impaired sight, the use of tobacco, and the wearing of leather boots, for example, are coincidences, "only that and nothing more."

But when we find, in common with so large a number of competent observers, that impaired vision, accompanied or not by apparent changes in the optic nerve, so frequently occurs without any cause to which it can be attributed, except the use of tobacco, and that the sight so frequently improves when it is given up, without other treatment, or any change in the habits or surroundings of the patient, we can scarcely hope for stronger evidence of the cause of the amblyopia.

Again, observers agree that a large class of cases presenting central color blindness, and a diminution of direct visual acuity, have a toxic origin, such as tobacco, alcohol, etc., and that these symptoms are most frequently produced by tobacco. Berry says he has looked out for the symptoms of tobacco amblyopia in women for the past five or six years and has only met with them in three cases. These three women smoked to excess but did not drink. Now, it is well known that women in Great

Britain seldom smoke, but lamentably often feel disposed to take spirits. They thus afford, negatively, evidence for tobacco-amblyopia, and proof that the above symptoms are less frequently produced by alcohol than tobacco.

Further, the abundant testimony that tobacco acts detrimentally upon other parts of the nervous system, even causes myelitis and atrophy of the cord, affords strong circumstantial evidence for attributing neuritis and atrophy of the optic nerve likewise to tobacco.

Bean describes eight cases of angina pectoris in which the attacks ceased when smoking was stopped, and returned when the patient began to smoke.

Most of you are doubtless familiar with the "tobacco heart" of Dr. Bowditch.

Erb, of Heidelberg, says: "Various authors adduce excessive tobacco smoking among the causes of tabes dorsalis."

Those who disbelieve in tobacco-amblyopia think their view is strongly supported, insomuch as among the army of smokers there are relatively a few only whose sight becomes affected. The absence of amblyopia in Constantinople, where smoking is so general, seems to support more strongly still the above view. But the *mild quality* of the tobacco and the *mode* of smoking in Turkey differ so much from the "shag" of England, and the method of smoking in England and America, as possibly to account for the immunity of the Turk.

It has been experimentally determined by a French pharmacist, Malapert, that a dry cigar yields, while burning, a very small amount of watery vapor, the smoke cools rapidly and allows the condensation of nicotine before it reaches the mouth. Hence the first half of a cigar or pipe smokes more mildly than the second, in which a certain amount of watery vapor and nicotine freed by the first half is deposited.

From this it is evident the cigar smoker may, if he "throw

away the worser part of it, live the purer with the other half."

Sir Henry Thompson tells us "the ladies of Constantinople smoke fifty cigarettes a day, merely taking a few whiffs from each, then throw the cigarette away, and considers little harm ensues from such smoking."

In the case of the pipe, the quantity of nicotine that will reach the mouth may possibly be reduced to the safety-point by smoking through long stems or water.

If the Turk, who ornamented the geography of our early school days, still survives, the long, flexible stem of his magnificent pipe may at this moment be the safeguard of his optic nerves.

The custom among the Turks of drawing the smoke through water in the nargilleh or water-pipe, a process called "bubble, bubble," is a very valid additional reason for their freedom from tobacco-amblyopia.

Peculiarity of race, idiosyncrasy of constitution, nervous exhaustion, impaired nutrition and other debilitating causes may or may not account for the elective affinity of tobacco, alcohol, lead, silver, mercury, nitro-benzol, sulphide of carbon, quinine, salicylic and osmic acids, for the eyes of certain individuals. But to deny that these substances produce amblyopia because so large a number are exposed with impunity, is as reasonable as to deny small-pox can reproduce itself because the majority of people escape, or that cirrhosis of the liver is caused by alcohol because so many dram drinkers maintain sound livers, or that cold and wet can produce rheumatism because so few of the exposed multitude suffer.

If this paper should be the means of securing your views, and afford any hints concerning the entity and nature of tobacco-amblyopia, I shall be fully repaid and feel that your time has not been squandered.

70 Monroe Street.

EDITORIAL.

THE INTERNATIONAL MEDICAL CONGRESS OF 1887.

The time appointed for the next meeting in New York, on September 3rd, of the Committee of Arrangements for *The Ninth International Medical Congress* is near at hand, and we desire to express the hope that the meeting may be characterized by evidence of appreciation of the responsibility of the position of that committee. The out-look for the congress is critical, and the honor of the medical profession of the United States is involved in the success of that congress. Therefore those who have been intrusted with the preparation for it should weigh well every official act of theirs. Too many mistakes have already been made. The present committee cannot afford to add to that number, any more than the profession at large can afford to have it done. Broad, liberal ground should be taken by the committee. It has the experience of the eight preceding congresses to guide it. Surely the experience gained in them should greatly aid the present committee, and the advantages of that experience should not be lost or ignored.

In the organization of the congress, the same rules should govern in the next that have obtained in the past. No distinction should be made between the foreign and the American members. The fact should be distinctly kept prominent that it is not a delegated body. It has not been in the past; there is no valid reason why there should be any effort to make the

next one such. There should not be two or more classes of members. All must meet on the same plane—with equal privileges—equal duties—and equal responsibilities. Let all local ethical questions be eliminated. The foreign representatives expect and demand this, and such is their right. There may be honest differences of opinion, in our own country, on certain points of principle and policy, but there can be no valid reason for thrusting them, or their effects, upon foreigners who may come here. Sight should not be lost of the fact that science and humanity are the objects for which these congresses convene, and that all matters of selfishness and partisanship should be subordinated thereto.

As our faith, as a profession, was pledged, when our invitation was accepted, to do all in our power to make a success of the congress, we cannot do less. Everything that might conflict therewith, and diminish the prospect of such success, must be kept in abeyance.

For the official positions—whether the most prominent or the subordinate ones—only representative men should be selected. Much of the success or failure of the congress will depend upon the wisdom and the fairness of the action of the committee at its coming meeting. We hope that it will be such that there may be no occasion for vain regret.

CHOLERA.

The ravages of cholera in Spain continue, and excite the sympathy of the world.

The experience of last year seems to have been lost in Marseilles, and that city is again paying the penalty that filth and neglect of sanitary measures impose.

It was but natural to suppose that after such afflictions as

Toulon and Marseilles experienced, a year ago, there would have been no neglect of any sanitary measures calculated to prevent a recurrence of that dreadful disease this year, but, if the reports that reach us be true, but little has been done by the authorities of either Toulon or Marseilles to improve the sanitary condition of those cities in the interval, although the fact has been known to them, and to the world, that their condition was of the most favorable character for the spread of the disease. The authorities were indifferent in the interval: now all classes of society seem to be suffering, and reports say the populace are terror-stricken.

It is fortunate that the disease has been confined to so restricted a territory until the season is thus far advanced. This gives timely warning to other countries, having constant intercourse with those thus afflicted, that no precautions should be omitted to prevent introduction of the disease from those countries.

Distance should not lull the United States into fancied security, nor the lateness of the season lead to the relaxing of quarantine regulations nor sanitary measures, especially along the lines of travel and traffic.

It would scarcely seem necessary to remind the authorities and the public that regrets are useless and unavailing when opportunities for securing safety have been thrown away and the plague is in our midst, were it not that Toulon and Marseilles are now offering evidence of the negligence that seems to characterize people, even in the face of threatening danger. With those examples, and the present experience in Spain, it would be culpable if the authorities of the general government of the United States, and our state and local health-officials should omit any part of their important duties in an effort to prevent the introduction and spread of cholera in America.

MR. LAWSON TAIT ON THE MODERN TREATMENT OF UTERINE MYOMA.

MR. LAWSON TAIT'S recent paper, entitled "*The Modern Treatment of Uterine Myoma*," read in the section of Obstetric Medicine at the annual meeting of the British Medical Association in Cardiff, will attract universal attention. This paper supplements the discussion of DR. THOMAS MORE MADDEN'S essay upon the subject before the British Gynecological Society on Wednesday, 27th May, 1885.

In this discussion MR. TAIT said, with reference to the management of uterine myoma, "I must not go into the question of medical treatment, because it is very much like the chapter in the History of Ireland about snakes—there are no snakes in Ireland. The medical treatment of uterine myomata is a myth."

MR. TAIT'S modern experience confirms the conclusions of his paper, read 24th May, 1881, before the Royal Medical and Chirurgical Society, and published in *The American Journal of the Medical Sciences*, January, 1882.

The first point of his thesis is "to show that removal of the uterine appendages for myoma, when properly performed, is not a fatal operation, but one with hardly any mortality at all, even when the tumours are large, and when the patients are brought almost to death's door by hæmorrhage."

In support of this proposition, a list of fifty-eight operations without a single death, since January, 1884, is appended.

The second point in the thesis is: "That the results of oöphorectomy are satisfactory and permanent, so that we may with confidence recommend it for relief of suffering and the saving of life."

In support of this proposition, statements as to the present condition of his first fifty cases, drawn from personal observa-

tion, the practitioner who sent the case, or the patient herself, are adduced. Of the fifty cases, failure occurred only in two instances.

"Somewhat jealous for the honor of English surgery,' MR. TAIT claims the priority of the introduction of oöphorectomy. He proposed and discussed the procedure in October, 1871, and successfully performed the operation on February 11th, 1872. HEGAR'S first operation, which was unsuccessful, was performed July 27th, 1872.

MR. TAIT'S second successful operation was performed on August 1st, 1872.

DR. BATTEY'S first operation, which was also successful, was performed on August 17th, 1872.

DR. FERRAN AND CHOLERA-INOCULATION.

The medical profession of the world has hoped, rather than expected, that the experiments and the claims of Dr. Ferran might prove satisfactory. On theoretical grounds it was not clear how the claims which he made should be realized. Since the disease is believed to be introduced through the alimentary canal, and one attack of it does not prevent repeated attacks, it was difficult to understand by what means he was to so impress the system, from without, as to secure immunity whenever the cause of the disease, be it comma-bacillus or anything else, found its way into the alimentary canal, and lodged in fertile soil for its development. If it be assumed that Dr. Ferran was honest in his convictions and his practice, it was heroic to have assumed the responsibility of inoculating so many human beings on the strength of theory alone, for this he seems to have done.

His expectations, his promises, appear to have failed of real-

ization. Some who were inoculated by him have escaped death, but, if reports be true, the percentage of recoveries seems to be so small of those who have been attacked, after inoculation, as to indicate that they have been the exception rather than the rule.

By some it is claimed that the degree of confidence inspired in those who had been inoculated rendered them less liable to be attacked by the disease by diminishing the depression which follows dread of it. Even if this claim be well founded, it seems but little compensation for the apparent risk incurred by the inoculation.

Certainly, facts appear yet to be wanting to justify Dr. Ferran's claims, or further persisting in his inoculation. This seems to be the verdict of the scientists who have investigated the matter, as far as it was practicable to do so.

Thus much has been said on the assumption that Dr. Ferran has been honest—both in his belief and his practice—a claim that, in the light of the latest advices, it seems difficult to accord him.

When it is considered how great are the ravages of the disease for which no preventive is now known, and how great the sufferings, and terrible the death of those afflicted with cholera, it is inconceivable how any man, who claims to be a physician and a benefactor of mankind, should be willing to keep secret anything that he might know that could prove so great a boon to his fellow-man as a preventive or a remedy for cholera, and yet be unwilling to impart that knowledge, except for money-consideration. That he has done this is in itself sufficient to make him a self-condemned man, but if it be true as charged, and, seemingly truthfully charged, that his so-called virus is but a preparation of elaterium with which he inoculates people, and that he administers the same medicine,

internally, to produce catharsis, that shall resemble the purging of cholera, what language can be found that shall be adequate to give expression to the villainy, the fiendishness, of such conduct!

CORRESPONDENCE.

NEGAUNEE, Michigan.

To the Editors of the CHICAGO MEDICAL JOURNAL AND EXAMINER:

Messrs. Editors: One of the most valuable of the drugs known to me is the *Bryonia Alba*, the white bryony of Germany and France. In the human body the sphere of its action is both wide and strikingly manifest. If properly administered, it never fails to produce its curative effects. But the drug has been forgotten. It occupies a scarcely-read page in the National Dispensatory, and barely receives mention in that clever little "EXTRA PHARMACOPŒIA" of Martindale and Westcott.

The white bryony is useful in many pathological conditions. When a patient has a cold involving the lungs, three or four minims of the tincture, largely diluted, may be given with good results, every three hours. In pleurisy, one or two drops may be administered every hour. In bronchitis of the larger tubes three or four minims may be given every three hours, especially if the cough be dry and tight, and the patient complain of painful stitches in the upper portion of the chest. In the bronchial cough of old people, two or three minims given every two to four hours will commonly relieve the symptoms. In all cases the pure tincture should be used.

The drug operates effectively in combination with aconite and gelsemium. If necessary to prescribe two of such medicaments, it is best to give them by alternation.

Bryonia should be tried by a fair test, in order that its real merits may be recognized. It should not be used once timidly, and then, failing to secure the end desired, be laid aside, while a dose of paregoric is substituted. It should not be misjudged because it has achieved popularity with those who call themselves homœopaths. It can be made to appear that its merits are genuine, and its value peculiar to itself, if it be judged without prejudice.

Take, for example, a patient affected with pneumonia, in an early stage of the disease. Let a teaspoonful of the following mixture be given every half hour until the perspiration is freely secreted, and after that once every hour or two:

R.

Bryoniæ Albæ Tincturæ,..... ♏ x.
Aconiti Radicis Tincturæ,..... ♏ xvi.
Aquæ Destillatæ ad,..... ℥ ii.
M.

In addition to this, give one-half teaspoonful of Horsford's Acid Phosphate in a half glass of cold water, sweetened to suit the taste. Repeat every two hours, gradually decreasing the dose as the temperature shows a tendency to remain near the normal point.

Should it be desired, however, to test the peculiar efficacy of the phosphate in this disease, after having once reduced the temperature from 103° or 104° F. to 99° or 100° F. its use may be suspended for a day and the relapsing fever observed.

If, however, content with having reduced the temperature and with it most of the distressing symptoms, one may continue with the acid and decrease the dose of aconite

and bryonia as the case requires. Bryonia has a special action upon, and an affinity for, serous membranes, and if pleurisy complicates the case it may be needed in three minim doses, and as often as every two hours. Conjoined with the foregoing treatment, compresses, large and light, should be thoroughly saturated with vinegar and water, and generously applied to the chest, and if there is much headache, to the forehead, as well. These should be renewed quite often, and by an undisturbing hand. So much for the acute trouble. When active disease has ceased, and it is desired to assist nature in removing pathological products, 1-100 of a grain of corrosive sublimate may be given every three hours.

After having treated a few cases in this way, I do not hesitate in saying that one will become an ardent advocate of the use of byronia.

Since adopting this method of treatment there have been under my care many violent cases, but the record has been a clean one, undefaced by death, and undisturbed by anxiety or alarm.

I have nothing to say to the advocates of Dover's powder, carbonate of ammonia, morphia and quinia, etc., but having tried all these drugs with brilliant success and disastrous failures, I have laid them aside.

Very truly yours,

C. S. LOMBARD, M. D.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, August 3rd, 1885. — THE PRESIDENT, PROFESSOR CHARLES T. PARKES, M. D., in the chair.

DR. FRANKLIN H. MARTIN read a paper on the "Oleate of *Manganese*." He said: There is little doubt left in the minds of therapeutists in regard to the value of manganese as a remedy in certain forms of menstrual trouble. The remedy, in the form of permanganate of potash, was first brought to the attention of the profession by Ringer and Murrell, of London, in the spring of 1883. They recommended the drug in functional amenorrhœa. Soon after this he commenced experiments with the same preparations, and published the results in *The New York Medical Record*, Sept. 29, 1883. To his knowledge, that was the first that anything on the subject was published in this country.

In the course of his experiments, acting on the theory that the drug produced menstruation by stimulating the menstrual organs, he was induced to give the remedy in menorrhagia and metrorrhagia dependent upon an *atonic* condition of the organ. He found to his gratification that it acted equally well in these conditions, as in the opposite. He has also obtained good results from its administration in irregularities incident to approaching menopause. He has received very gratifying letters from many members of the profession throughout the

country, who have used the drug in one or more of the conditions mentioned above, with good results.

Professor ETHERIDGE thought much advance would be made in the use of drugs if we were more careful to discover in what conditions they were beneficial. He had found this remedy useful in cases of atonic amenorrhœa, with the uterus in its normal position. He had found the aqueous solution an eligible preparation, and had also used it in the form of a suppository.

Dr. E. J. DOERING, said he had used this remedy in some cases of atonic amenorrhœa with good results. He asked the effect of the drug upon the pregnant uterus.

PROFESSOR PAOLI had used manganese somewhat for several years, in cases of menstrual disorder, with varying degrees of success. It was a useful remedy in many skin diseases. He had not used the oleate, and could not see how it acted upon the uterus, unless, possibly, by being applied at once after being freshly prepared.

DR. MARTIN closed the discussion by saying he had used the aqueous solution in very small doses, also had had the remedy put in dry papers and swallowed with a glassful of water. He had never used it in the form of a suppository. Manganese has no effect on the pregnant uterus. The drug seems to act as a general stimulant to the uterus, causing it to perform its normal function. It might be absorbed as the oleate and so produce its effects.

"*Does the Use of Tobacco Injure Sight?*" was the subject of a paper read by W. FRANKLIN COLEMAN, M. D.

To consider the physical effects of a poisonous weed, food for neither man nor beast, yet consumed alike in every quarter of the globe, by savage and sage, saint and sinner, is a theme of no little consequence. The active principles of tobacco are

an alkaloid called nicotine and a volatile oil called nicotianin; nicotine is also contained in tobacco-smoke. The observations of Claude Bernard that "nicotine at first produces contraction of the arteries, and later on the vessels become distended," agree with the views of Uspensky, who from physiological researches concludes that "Nicotine first stimulates then paralyzes the vaso-motor centers."

From personal experience, and the literature at his command, he knows of no more constant detrimental effect of the use of tobacco than more or less impairment of vision. In England there is a general belief amongst surgeons that tobacco is more frequently the cause of amblyopia, while in America it is attributed more generally to alcohol.

In regard to treatment, the withholding of tobacco is an evident requisite. Opinion is divided as to the benefit of the hypodermic use of strychnia. He believes that if the strychnia is pushed to the production of spasms, usually requiring 1-10 gr., often 1/8 and occasionally 1/4 gr., twice a day, recovery is always hastened and often occasioned.

The great majority of the authors who have written on diseases of the eye agree that amblyopia is often caused by the use of tobacco. That the Turks, who use a large amount of this weed, are not oftener subject to disorders of vision, may be due to their habit of using long stems to their pipes, or to the use of the nargileh or water-pipe, by which means the amount of nicotine that reaches the mouth is much reduced.

Peculiarity of race, idiosyncracy of constitution, nervous exhaustion, impaired nutrition and other debilitating causes may or may not account for the elective affinity of tobacco for the eyes of certain individuals; but to deny that tobacco produces amblyopia because so large a number smoke their poison with impunity, is as reasonable as to deny that cirrhosis

of the liver is caused by alcohol, because so many dram-drinkers maintain sound livers; or that cold and wet can produce rheumatism, because so few of the exposed multitude suffer.

DR. PAOLI said while the excessive indulgence in tobacco might be harmful, the fact of its almost universal use and continued use in many cases for years resulted in no deleterious effects, would seem to show that its narcotic power, used in the ordinary way, was very slight. He had used tobacco for fifty-five years and felt no ill results. The Germans use large quantities of it, and do not suffer. This seemed to be a case of excess of zeal on the part of the ophthalmologists to discover a cause for amaurosis. We ought to be conservative on this point.

DR. COLEMAN closed by saying that only in certain susceptible conditions was tobacco liable to cause disorders of vision. But that so few suffered was no proof that it had not this baneful influence when acting with other causes.

LACERATION OF THE CERVIX UTERI.

DR. JOHN BARTLETT read a paper in which he said his object in addressing the Society was to suggest a way and a time in which laceration of the cervix uteri may be easily and certainly detected soon after its occurrence.

Directly after delivery, if the fingers be introduced deeply into the vagina up to the contracted os uteri internum, and then carried in any direction a little outwardly, the flabby and floating ring formed by the non-contracted cervix may be felt, as Guillemeau described it three hundred years ago, "like a section of large intestine."

By very carefully following the entire circumference of this ring an existing rent may be discovered. But this examination is attended with some difficulties. The patient is exhausted with her labour, and fatigued with attentions, and just now,

since "it is all over," longing for rest. She is impatient of, and perturbed, by this *post factum* inquiry. Her state of mind, and possible expression of complaint, are apt to render an examination, which the physician cannot regard as absolutely necessary, less exact and thorough than it would be otherwise. And then, the soft and floating margins of the cervix have often somewhat of an intangible feel, if the expression be permitted, gliding past the fingers like a detached clot of blood, and occasionally, in some portion of their circumference, passing out of satisfactory reach.

On this account it is not surprising to hear an obstetrician say that he cannot tell whether the post-partum cervix is lacerated or not. The error of the accoucheurs who fail to recognize such a condition is, that they do not make their observation of the suspected cervix at the proper time. They examine the neck actually, as has just been done mentally—after the clearance of the uterus. The favorable moment for the examination—and that he said was the special point of his remarks—is just as the placenta is beginning to occupy and distend the cervix. The collar of flesh is then not floating and uncertain in feel, but stretched and expanded, forming a distinct ring, easily followed in its entire circumference. At this moment then, just as the cervical tube is being rendered tense by the placental mass, any laceration in it may be detected with ease and certainty.

PROFESSOR ETHERIDGE asked the author of the paper whether he had verified a case by speculum examination after discovering it in the way he had illustrated in his remarks.

PROFESSOR PARKES said he had great difficulty in detecting laceration after delivery, on account of the relaxed condition of the parts. He thought the suggestion of DR. BARTLETT as to the way to obviate this difficulty was a good one.

DR. DOERING inquired as to the size of lacerations he had found.

DR. BARTLETT concluded by saying that he had verified cases of laceration discovered in the manner proposed by him. The largest laceration he had found was one and-a-half inches in length, and the end of the little finger could be passed into it. In one case he encountered considerable hemorrhage from such a rent: and this may be the cause of continuous loss of blood when the os is well contracted.

DR. BARTLETT illustrated his remarks with earthen-ware models, turned by a potter, under his immediate direction.

The society then adjourned.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, Aug. 17, 1885. THE PRESIDENT, PROFESSOR C. T. PARKES, M. D., in the chair.

A CASE OF OVARIOTOMY

Was reported by PROFESSOR C. T. PARKES, as follows: In Feb., 1885, the patient, Mrs. R., aged forty-three, ten children, came under the care of Dr. O'Connell, of Ponca, Nebraska, who diagnosticated ovarian tumor. Professor Parkes was requested to perform ovariotomy. He found the patient in fair condition generally, hopeful and clear-minded. The abdomen was glistening with distension. Fluctuation was extremely well marked in all directions and in all positions of the patient. There was no resonance anywhere, and there was no umbilical hernia. Her trouble dated from August, 1884, when a small tumor was perceptible on the right side. It gradually increased in size until January 17, 1885, when local peritonitis set in and was followed by rapid distension. Ovariotomy was done

March 24, 1885. The patient had been placed in a bright light and an incision four inches in length made in the abdominal walls, midway between the umbilicus and pubes, to the peritoneum. There was no peritoneal fluid, but fortunately the bright light enabled him to distinguish between the peritoneum and the sac of the tumor, which were closely united by adhesions. The adhesions were broken down as far as the hand could reach. A trocar was next plunged into the tumor and about eighteen quarts, or about thirty-six pounds, of a dark, sanguineous fluid evacuted. The sac was enormously distended and very thin. After the most of the contents were drawn off, the opening made by the trocar was closed by Nelåton's forceps. The sac was still adherent extensively laterally and posteriorly. These adhesions were destroyed as completely as possible, and yet it was impossible to draw the sac through the opening or to reach the deeper adhesions to the pelvis and flanks. Finally a free space was found in the right iliac fossa, the sac turned up and the pedicle found and secured. The greatest difficulty was found in separating the sac from the intestines, which were extensively adherent to the posterior surface of the sac, and could only be reached by turning the tumor upwards after division of the pedicle. A firm, broad adhesion to the stomach at the top of the cyst could not be separated, so a portion of the outer wall of the cyst, corresponding in size to the adhesion, was dissected from the tumor, and in that manner the entire tumor was finally removed. The pedicle was about two inches long and very slender, and came from the right side of the uterus. It was noticed in the specimen exhibited that the sac was almost entire, and that it was not smooth and glistening, but rough from the adhesions, and at the lower part there was an indurated mass about the size of a large orange.

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The sac and mass together weighed but three pounds. There was a vast area of oozing surface from which the adhesions had been torn, yet very little blood was lost. The abdominal cavity was thoroughly sponged, a drainage tube introduced, and the wound closed by six silk sutures.

The length of the incision, after the removal of the tumor, was but two inches. The patient progressed favorably until the fourth day, when she was attacked with severe and persistent vomiting, rising temperature and pulse. The stercoraceous vomiting which ensued and the increasing exhaustion until her death, on the sixth day, pointed toward bowel obstruction.

The points to be noticed in this case are the great extent of the adhesions, the only clear space being in the right iliac fossa, the only way to reach them being to ligate and separate the pedicle and then turn the sac upwards; the small size of the pedicle for such a large tumor. It seemed to be approaching the conditions of a free ovarian tumor described by MR. DORAN, who explains their presence by atrophy and absorption of the pedicle taking place when there are very vascular adhesions of the tumor to other parts, through which nourishment is carried on. It was also noted that this patient went along all right for five days, then symptoms of intestinal obstruction set in. The question was raised, whether it is not the urgent duty of the surgeon in such a case to reopen the abdominal wound and search for the seat of the obstruction and remove it.

A CASE REQUIRING BATTEY'S OPERATION

Was next detailed by Professor Parkes. Miss M., age 17, single, an American, had suffered greatly from pain referred to right iliac fossa, increased during menstrual periods, for one year previous to placing herself under his care, January, 1885. She was already an invalid. Examination *per rectum et vaginam* disclosed retroversion of the uterus, accompanied with a dis-

location of the right ovary into the Douglass *cul de sac*. Medical treatment having failed, Battey's operation for the removal of the prolapsed ovary was done June 2, 1885. Nothing unusual occurred during the operation, and the patient convalesced rapidly. The temperature never rose above 99°. The dressing placed upon the wound was the dry dressing consisting of iodoform, antiseptic gauze and a layer of absorbent cotton. This dressing was not removed until the seventh day, when the stitches were removed. The line of cicatrix was perfect throughout. There was no formation of pus. The blood around the stitch-holes was dry and scaly. The case was remarkable, principally, from the absolute freedom from any discomfort during the recovery from the operation. It was the first example of dry wounds Professor Parkes had ever seen. The patient was out in three weeks. The uterus was not fastened in its new position, and is slightly anteflexed, but not anteverted. The morbid specimen exhibited is the ovary much enlarged with two small parovarian cysts developed on it.

A CASE OF DOUBLE OVARIOTOMY

Closed the series of cases presented by Professor Parkes. Mrs. P., aet. 44, and had borne 5 children. She complained of a tumor growing for the last two years over the situation of the gall bladder. February 15, 1885, Professor Parkes made an exploratory operation, and after cutting into the growth, out popped a biliary calculus, about one inch long and bean-shaped. Nothing further was done, and the tumor began to disappear. However, during the manipulation of the abdominal walls he discovered two small tumors in the pelvis, in the region of the ovaries, which were supposed to be ovarian growths, but were not disturbed. But they rapidly grew in size, and were removed by laparotomy on June 16, 1885. The bowels had been moved two days previously. The abdominal incision disclosed

the larger of the two tumors now shown, the larger filled the anterior inlet of the pelvis and was held down by slight adhesions. These were broken down and the mass removed. It was found to be the right ovary degenerated. The pedicle was extremely short and was with difficulty secured. It was tied, divided and the stump dropped. Likewise the left ovary was removed and found to be degenerated. The tumor being smaller and pedicle longer, no difficulty arose. Finally, in sponging, quite free bleeding was noticed from the right pedicle. It was again transfixed close to the uterus and all hemorrhage ceased.

It was noticed that the sigmoid flexure of the colon was distended with fæces, and this condition was remarked as unaccountable, from the fact that free catharsis had been obtained only two days previously. The patient did well for ten days after the operation, with the exception that no action of the bowels could be secured by medicines or enemas. A careful digital examination revealed, high up in the rectum, a stricture which could not admit the end of his index finger. The slight opening was surrounded on all sides by a thick, dense deposit of abnormal growth. The question of relief seemed to stand between forcible dilatation of the stricture and the establishment of an artificial anus. July 30, he dilated the stricture so as to admit three fingers in a cone shape. The tissue was very dense. It broke down with difficulty, and the induration extended up the bowel quite two inches. After this was done the scybalous mass was easily removed. By the next day the bowels had moved several times, freely, and tympany disappeared. As Professor Parkes had to leave the city July 5th, the patient was left in the care of Dr. R. G. Bogue, who subsequently told him the patient had died suddenly on July 10th, with symptoms of perforation of the bowels.

Two inquiries arise:

1st. Is it not well to examine the rectum thoroughly before operations, in all cases?

2nd. Would the establishment of an artificial opening, as soon as the nature of the obstruction was determined, have given a better result in the case reported?

Professor Parkes also exhibited A SPECIMEN OF EPITHELIOMA OF THE VULVA, which he had removed by Paquelin's cautery.

PROFESSOR ETHERIDGE, opened the discussion by asking how far we could go in removing portions of the intestine in cases of obstruction. He said that he had recently had a trying experience in case of ovarian tumor, in which, after the operation, the patient reacted well, but in forty-eight hours vomiting came on, which soon became stercoraceous and the patient died. On *post mortem* examination, the whole of the large and most of the small intestines were greatly distended with gas. A short piece of the small intestine, just where it entered the large one, was collapsed, and with great difficulty could any of the gas be forced through it. He asked the author of the paper if he would have had the courage to have removed this portion of the intestine.

DR. FRANKLIN H. MARTIN said he had been very much instructed and entertained by Professor Parkes' well detailed report. It had impressed him with three points or lessons that were dwelt upon in a recent article by A. VANDER VEER, M. D., of Albany, N. Y., in the July number of the *American Journal of Obstetrics*, citing "personal observations on the work of Lawson Tait," at his private hospital, in Birmingham, England. These three points, which to his mind explain, to a great extent, the wonderful results of that great operator, are:

1st. Cleanliness, pure air and sunlight.

2nd. Efficient good-looking nurses.

3rd. Close personal supervision, and attention to after-treatment.

In the first case Professor Parkes reported to-night that good light had saved him from going directly into the sac of the cyst in attempting to enter the peritoneum. This case also, he suggested, might have fared better had he been present to have given personal attention to the movement of the bowels, thus, possibly, removing the obstruction which was apparently present. In the third case, if personal attention had been given to the bowels sooner, the obstructions due to the stricture might have been removed and the ultimate result been more favorable. Here the nurse was at fault. Again, in the third case, if personal attention had been possible, the early operation for artificial anus, as Professor Parkes suggested, might have influenced favorably the ultimate result.

DR. MILLER thought that dilatation of the rectum was the only feasible method of relief in the case in which a malignant growth was formed in the lower bowel. An operation for an artificial anus would have been difficult under the circumstances.

PROFESSOR SARAH H. STEVENSON asked why not open the sigmoid flexure and remove the accumulation from it at the time of the operation?

PROFESSOR PARKES closed the discussion by saying he would remove a portion of the intestine if it presented the only way of saving the patient's life. If in a few days after the operation symptoms of obstruction should come on, he would re-open the wound and seek for the seat of the trouble. He said that his theory of the best mode of procedure in these cases was gaining ground in the profession every day. DR. HAMILTON, of New York, lately reported a case of a gun-shot wound of the abdomen, in which there were eleven perforations of the small and

four of the large intestine. These were sewed up and the patient recovered.

The cause of the constriction in the case reported by Professor Etheridge was probably due to an obstruction of the arterial supply to this part of the intestine, causing it to contract. Little good would come from an operation in this case. He thought an artificial anus might have been made in the second case referred to in his paper, though the bowel was distended. In these cases only a small opening was necessary. This might have prolonged the patient's life a short time. The cause of death was perforation of the bowels resulting from an ulcer incident to the dilatation of the rectum. He generally used saline cathartics to open the bowels. He would not have been justified in removing the accumulation from the sigmoid flexure at the time of operating, on account of the additional shock to the system it would have caused.

OBSERVATIONS ON THE CAUSE AND TREATMENT OF INFANTILE ECZEMA AND ALLIED ERUPTIONS, was the subject of a suggestive paper read by HENRY T. BYFORD, M. D. He said, in the winter of 1880 he had been called to attend Mrs. R. in her fifth confinement. Two of her other children were dead, and two more, apparently healthy at birth, had died in convulsions before they had completed one year of life. Both of the last two had suffered from scabby eruptions and had become somewhat emaciated, but had not been considered syphilitic. The child born at this time, seemingly healthy at first, soon broke out with what appeared to be an ordinary *eczema pustulosum.* This eruption occurred on the scalp and on different parts of the body. The child suffered from progressive emaciation, and at the age of three weeks it would easily have been mistaken for a case of struma, to be treated with cod-liver oil. The patient was quickly relieved by calomel in minute doses and mercurial inunctions.

The next case referred to was that of Augustus G., seen first in the summer of 1876. The child had pustular ezcema of the scalp; great nocturnal restlessness and suffered from progressive emaciation. There was no cause to suspect syphilis from the appearance of the child, but the father acknowledged to what seemed to be a perfectly cured attack of syphilis. The eczema rapidly disappeared, and the infant gained in flesh upon calomel powders and mercurial inunctions.

In contrast with these syphilitic cases, he next mentioned the case of E. H., a child one year of age, fat and well nourished, with no possibility of a syphilitic taint, but suffering from an eczema of the head, which spread over the body in patches. Prolonged local treatment had not improved it. The disease soon disappeared under the use of one-fifth grain powders of calomel, given twice a day, and an ointment composed of a dram of carbolic acid in an ounce of oxide of zinc ointment. The child had been over-fed and was put upon a restricted diet. There was no return of the disease.

The next case was one in which the eruption invaded the eyelids and caused great conjunctival sensitiveness. By the use of quarter-grain doses of calomel, given twice a day until a laxative effect was produced, then once a day, combined with the external application of carbolized oxide of zinc ointment and a borax eye-water, the condition of the patient was soon greatly improved.

He had succeeded in relieving many other severe cases of eczema by the use of calomel, and it made no difference on what part of the body the eruption occurred or what the condition of the patient was otherwise.

That eczema so frequently occurs in infancy, the large size and great activity of the liver in early life, and the striking action of calomel, had led the author to associate indigestion

with infantile eczema as cause and effect. In syphilitic cases the alterative powders often produced an amelioration in the skin trouble sooner than they could through their direct action upon the blood-poison. In all cases it is important to regulate the diet.

He knew of no authority who had considered derangements of the liver, and its accompanying digestive disorders, as the chief cause of eruptions of the skin, or who had recommended calomel as the chief remedy for its cure.

As calomel produced such prompt relief, and as improvement of digestion usually followed rather than attended the action of the remedy, one is led to believe that the cure is brought about not merely by improving digestion but by a removal of waste, irritating, matter from the system, and from the great efficiency of mercury over other laxatives. He believed that the irritating materials are not only in the retained fecal matter but also in the blood—the products of imperfect digestion, assimilation and excretion.

He was led to the use of calomel in eczema from noting its good effect in cases due to syphilis, and as these patients improved so well under its use, he next tried it in cases where syphilis was only suspected, and then in all cases.

The usual dose was from one-quarter to one-eighth of a grain powder, given twice a day, the dose to be reduced if too great irritation of the bowels was produced. In cases of children over two and a half years of age, in order to avoid salivation, he usually gave purgative doses of calomel every six or eight days and trusted to diet and other remedies in the meantime.

DR. E. J. DOERING said he had not used calomel in eczema, but had had good results from the use of corrosive sublimate. He intends to use calomel, after this, in such cases, and he thought nothing better could be found to use in chronic cases.

DR. J. ZEISLER remarked that he was very much interested

in this paper and, especially, to hear that calomel was useful in eczematous skin diseases. He had always held the view advocated by HEBRA, that eczema was caused by external causes and required external applications for its cure. Calomel might be of use in cases due to syphilis. He would not use blue ointment on young children. He asked whether it would not be best to use some external application in cases where there were thick masses of crusts covering the diseased part, and also whether the author of the paper had found salicylic acid useful in this disease.

DR. C. W. PURDY thought retained excreta a cause of eczema, and called attention to the close relation existing between the intestinal tract and the skin, the condition of the one affecting the other. He had seen cases cured by the use of calomel and would favor this treatment.

DR. J. A. ROBISON said that Dr. Byford had found mercury beneficial in syphilitic and non-syphilitic cases, probably because given in small doses it was a general tonic, as iron or cod-liver oil, increasing the number of red blood corpuscles and enriching the blood. Thus it counteracted any dyscrasia present.

DR. BYFORD concluded by saying that Hebra was doubtless right in saying that eczema is caused often by external causes, but in some cases it was clear to him that the disease is due to causes arising within the system itself. In later years Hebra had modified his ideas of this disease somewhat. Although eczema could be cured by external applications, when so treated it is very apt to return. It is not so when removed by the use of calomel. External medication would often hasten the cure. He did not use salicylic acid. He believed that calomel in these cases acted as an agent causing eliminations as well as being a tonic.

The Society then adjourned.

DEPARTMENT OF HEALTH.

CHICAGO, APRIL 1ST, 1885.

TO THE HON. CARTER HARRISON, MAYOR, AND TO THE HONORABLE CITY COUNCIL:

I herewith transmit the annual report of the Department of Health of the City of Chicago for the year ending December 31st, 1884.

With this report is also published the statistical report for the year 1883. Such recommendations and modifications of ordinances as I have thought proper to bring before the City Council, during the past two years, for their action, have been sufficiently commented upon, while under discussion, and do not require further reference.

CLEANING THE CITY.

The custom of assigning the cleaning of streets to the care of the Department of Public Works, and the cleaning of alleys and removal of house garbage from alleys and streets to the Department of Health, has resulted in the usual confusion and extravagance of expenditure, which have, heretofore, more or less, characterized the work.

The cleaning of a great city—and keeping it clean—is a labor of enormous magnitude and of the most vital importance, and as there is really no demarcation between filth of the street and filth in alleys, there should be no division of responsibility in its removal, and, in my opinion, one contract should cover the whole. Such a course *should* insure efficiency and economy.

INSPECTION OF FACTORIES, WORKSHOPS AND DWELLING HOUSES has become a very important work of the department, and our diminishing death-rate may be largely attributed to the active supervision and improvement of the houses and places of labor of our laboring classes. This supervision has covered about 263,000 of our population, and the statistics presented by the chief of that bureau will be found of interest. The force has, at this date (April 1st), been increased to eighteen men, and I anticipate much assistance from their services.

STOCK YARDS AND MEAT INSPECTION.

This service, so important to the comfort and health of our citizens, has been satisfactorily performed. The stock-yard district has been the rendering neighborhood for a large portion of the civilized world. The fresh meats slaughtered there are distributed in carcass to all the larger cities of America, while many of the villages or small cities of 10,000 inhabitants or more of the New England and Middle States have refrigerators supplied from the same source.

Large orders have been filled by our packers for preserved meats in tin cans for the use of the English army in Egypt and India (21,559,548 lbs. in year ending May, 1885), and these meats are found in every hamlet of Europe and America.

In 1884, there were slaughtered at these yards 1,025,813 beeves, 3,959,352 hogs, 511,278 sheep; and the blood, bones, feet, scrap and offal of these animals were rendered into grease, glue and fertilizers in so prompt and efficient a manner as to create no offense, unless caused by unavoidable accident to machinery or lack of water supply. Officers of this department are on duty day and night at the rendering houses.

The inspection by meat-inspectors of the department, of animals brought to the yards and designed for food, has given

rise to considerable conflict with owners or commission men, to whom the animals were consigned.

The reputation of the business is so vitally connected with a careful inspection, that the stock-yard authorities and large packers have always sustained the health-officers in a vigorous performance of their duty. All animals regarded as unfit for food are shot in the pens and turned over to the rendering company. Several suits against officers of the department for damages, for loss of stock, have been brought during the year, but abandoned when they reached the higher courts.

On the 28th and 29th of July, two shipments of stock—comprising 964 head—reached the yards, afflicted with the southern cattle fever. Seven hundred and twenty-five were immediately shot and delivered to the rendering tanks. The remaining animals—apparently in good health—were slaughtered, under the inspection of Mr. Lamb, and about forty per cent of them disclosed evidence of disease, and the carcasses were condemned. The animals had been grazed all summer, along the northern line of the Indian Territory, and were driven to Caldwell, Kas., placed on board cars and taken to Kansas City, Mo. On the day of their arrival at Kansas City, several of them died, and the stock-men becoming alarmed rushed them off to Chicago.

It is presumed that this experiment, which cost the owners $16,000, will convince them that Chicago is not the most desirable market for stock of this character.

THE RIVER.

The condition of the river has been so satisfactory as to give little cause for complaint. The south fork of the south branch still remains in a deplorable condition. I can only repeat what I had to say in my last report on this point: "There can be no question that this slough of filth coursing

through the southwestern portion of our city, is a terrible menace to the health of our citizens. It not only directly creates disease, but by the septic influence it generates, invites the location and development of such germs of epidemic disease as may be introduced from without."

GENERAL HEALTH.

There is no feature of the Registrar's report which calls for comment. The city has been free from epidemics of every nature, and the death-rate is remarkably low.

OSCAR C. DEWOLF, M. D.,
Commissioner of Health.

BUREAU
OF
TENEMENT AND FACTORY INSPECTION.

OSCAR C. DEWOLF, M. D.,
Commissioner of Health:

SIR:—I herewith present a report of the work performed by the tenement and factory inspectors during the year 1883.

Sec. 1352 of the Municipal Code requires a full and detailed statistical report of the number of males and females of all ages employed in labor or service in factories, workshops, stores, warehouses, elevators, yards and domestic workrooms.

There are about 19,000 of such above named places of employment enumerated in the subjoined tabular statement, and about 200,000 persons employed therein.

The number of adults at the age of working capacity is much greater in proportion to the whole number of inabitants in this city, which is being constantly crowded with immi-

grants, than in older cities having a native-born settlement of Anglo-Americans, whose enterprising young people emigrate to all parts of the continent in search of more remunerative employment.

The principal business centre of the south division of the city has lately been bounded and confined at Polk street through the location of a railroad terminus; and the Board of Trade building has been erected at the foot of LaSalle street, between Jackson and Van Buren streets.

This encourages builders to erect ten and twelve story blocks for offices, workshops, and living apartments, so as to derive the largest obtainable profits from their investment in building grounds.

One such turret building will accommodate as many persons of employment (over and on top of each other) as an entire block of low business buildings outside the circumscribed business centre.

The detailed reports show that *more* than 60,000 persons are employed at service or labor *above* the first or store floors in the first ward alone (the business centre); the upper floors constituting one vast workshop.

Among the noticeable conditions found in the high buildings, and which are not sufficiently regulated by ordinance, is the lack of proper safe-guards in case of fire or accidents.

These high structures, constantly crowded as they are with human occupants, intermingled with highly inflammable goods, should consist entirely of fire-proof materials, and should be supplied with fire-proof outside stairways, constructed so as to afford safe exits to the vast numbers of architects, printers, telegraphers, cloak, clothing and suit makers, and the multitude of others who are employed in the several professional, commercial or manufacturing pursuits.

The prevailing custom of providing comfortable passenger elevators, together with the cheaper rents and better light and air to be obtained, causes the upper stories of these tall buildings to be much sought for, thus supplying one of the principal inducements to capitalists to erect an increased number of such buildings each year.

However, the convenient elevator has reduced the number of necessary stairways, constructed as they are for *general* use, and with little or no precautions for accidents, panic or fire.

These elevators should be constructed of incombustible material and enclosed within a fire-proof shaft; but this is rarely done—the usual method being, to but partially enclose them with a light wire-netting, or other similar materials, thus providing a sure passage for dense smoke or fire, and rendering this elegant convenience entirely useless at the very moment it is most needed, as a means of escape.

The lower or ground floors only, are used as stores and to show sample goods; all upper floors are workshops, if not offices or furnished rooms.

The style of fire-escape generally used at present is primarily intended for the use of the firemen, who can climb up and connect and direct the hose for a stream of water to the several upper floors; but the employés could not use these perpendicular ladders to safely escape from the twelfth story of a burning building, unless they are professional acrobats.

Iron stairways should be provided within fire-proof enclosures (which could be properly lighted through mica-covered openings), to connect at each floor with suitable *outside* iron balconies, in connection with outside iron stairways, and all provided with suitable railings, etc.

The ordinance prohibiting the employment of children under

fifteen years of age, for more than eight hours each day in factories and workshops, is being very generally complied with.

The classified, alphabetical lists of the trades and occupations are made according to the titles of the employing firms, and not by the articles of manufacture or sale; a more detailed or substantial classification being deemed impracticable, because of the almost universal custom of firms and companies of concentrating several trades and related occupations into one establishment, as printing, binding, lithographing, stationery and general publishing.

The subjoined alphabetical tables fully explain themselves and show an activity and magnitude in the manufacturing industries of this city, not so accurately obtainable from any other known source.

TENEMENT HOUSE INSPECTION.

A thorough examination was made during the year of all the sanitary conditions in 3,744 tenement houses, which contained 9,164 families, consisting of 42,331 persons.

A complete detailed written report is filed in this department for *each* examination made, the action taken, if found in an unsanitary condition, and the improvements effected. From the general character and conditions found in these buildings, filled in many instances with noxious odors from defective drainage, etc., and to twice their statutory capacity, with a class of inhabitants who are not over-clean in their personal habits, it would seem to be almost necessary that a still closer supervision should be exercised over this class of work.

I would suggest that a careful and thorough house-to-house examination be made of all the tenement houses within the city, during the months of April, May and June, of *each* year, in order that the neglected repairs and accumulations of the

winter months may be rapidly and effectually made or removed and a considerable cause for sickness, and possible deaths, done away with. The owners should be compelled to provide suitable and permanent receptacles for the garbage and general refuse of these houses, after which the inspectors should see to it that the occupants make *use* of these receptacles for their intended purposes; also, that the day scavengers remove the contents promptly and regularly. This would require constant and rather unsatisfactory work (for the inspectors) for a few months, but the resulting benefits to the tenants, if not to the general public, would fully justify the necessary expense and trouble; as, no doubt, the occupants would soon adopt the more cleanly habits because of their enhanced comfort, and in a short time follow the suggestions of the inspectors from *choice* and not by compulsion.

In the year 1883, (only two years since,) a comparative statement was compiled in this bureau, of the mortality ratio per thousand inhabitants in the strictly private residence wards and those containing tenement-houses and inferior dwellings.

These comparisons were taken from the "record of vital statistics" of this city, and are therefore reasonably accurate and to be relied upon as correct, and the results show that nearly *three* persons die in the tenement wards for every *one* person dying in the residence wards, and making a further comparison with the *class* of disease (preventable) causing death, the ratio is much greater as against the unsanitary wards. We will not claim that *all* the excess in the mortality is due to the unsanitary *housing* of these people, but conceding that *one-half* is due to insufficient and unwholesome food and excessive manual labor, and we still feel that additional work in this direction may be prosecuted with beneficial results. In the 3,744 tenement houses examined, the inspectors found it

necessary to serve 921 written notices to make *permanent* sanitary improvements in the lighting, ventilating, plumbing and drainage of the buildings. In addition to the work mentioned and shown in the detailed reports, a complete record is made of the number of rooms, families, persons, males, females and children occupying *each* house, which would be of great value and use, should an epidemic spread through the city.

SPECIAL EXAMINATIONS.

There were 1,558 "special" examinations made in residences or dwellings containing one family each, all of which were made upon the written requests of physicians, occupants or owners, or both. This class of work was not at first intended to form a part of the "regular" work of the inspectors; but the public generally are recognizing the true value and benefit to health of perfect house sanitation, and making such rapid strides in voluntary self-education in this direction that it has been deemed consistent to accede to those requests, and suggest proper remedies for all defects found.

It would seem that this "special" work was not the least important one of this department, when it was found that, out of the 1,558 houses examined, 726 were deficient in one or more of their important sanitary conditions, which defects were immediately remedied under the supervision of the inspectors.

At first thought, these facts would lead one to believe that *all* places of habitation should have the same inspection, *regularly* made, as are in the tenement houses; but the facts are, that these "special" examinations are only made upon the written requests of a physician (professionally visiting the premises named), or from the occupant or owner, who has long endured an indescribable odor (generally emanating from defective drainage or plumbing) throughout the house; and,

as a last resort, seeks the health department, that they may be relieved of the cause of their troubles.

SANITARY REQUIREMENTS IN NEW BUILDINGS.

The laws of this state require that the plans and specifications for all places of habitation (in cities of 50,000 inhabitants), shall be submitted to the Commissioner of Health for his approval or rejection, so far as relates to all sanitary arrangements to be provided in said buildings, and includes the ventilation of rooms, light and air shafts, windows, ventilation of water-closets, drainage, plumbing, etc.

Permits have been issued during the year for 2,444 buildings for habitation; the plans for which were submitted to this office for approval, so far as relates to *all* the sanitary arrangements to be placed in the proposed buildings, and copies of 1,389 of said plans were properly filed for reference, and represent all classes of house building, from the smallest cottage house to the palatial residence, and from the ordinary or usual two-flat building to the towering seven-story tenement house.

Of the 2,444 plans submitted, 1,142 were for so-called "flat" buildings (buildings fitted for *one* family only to each story or floor), 294 of which contained stores on first or ground floor; 483 tenement houses, containing *three* (3) or *more* families each, were built, and one, now in course of construction, to contain thirty-four (34) families; 116 cottages (brick) were built to accommodate one (1) family each, and the remaining 702 houses include all classes of one and two family buildings, from the mansion of the millionaire to the hostler's living apartments in the upper story of a barn.

These houses were constructed for the accomodation of 4,551 families, and estimating that each family consists of four persons, we have a total of 18,204 persons, who have received a direct and *permanent* benefit through the exertions of this

department. The method pursued to accomplish these permanent benefits or improvements consists in first compelling all architects, builders and other persons interested in the construction of these buildings (and before commencing work on same), to first submit their plans and specifications to the Commissioner of Health, for his approval or modification as to their sanitary arrangements; and after approval, this bureau enforces all the requirements of the laws, ordinances, rules and regulations relating thereto, by constant and supervisory examinations of the buildings from time to time, during their erection and after completion.

This supervision is found necessary, because many unprincipled persons often attempt to omit necessary conditions or to construct in a much different manner than the approved plans and specifications represent, and in direct violation of the laws, etc., governing the same. The total number of these violations by the architects, builders and plumbers in the *construction* of new habitations during the year were 204, which required the serving of a written notice by this department (for each one), requesting the violators to remedy the work at once, which order or notice not being fully complied with, the whole was carried into the courts where, I am pleased to state, *every case* (and there are scores of them) was decided in favor of this department. Therefore, without *legal* compulsion, through the efforts of competent inspectors, these sanitary improvements could not have been enforced, and the construction of permanently unsanitary house-buildings would have continued as in the past. The importance of, if not the *necessity* for, this class of sanitary work, cannot be better shown than in the preceding statement, that in *one* year alone this bureau has effected permanent and substantial improvements, which directly benefit *more* than eighteen thousand inhabi-

tants; while under the former ordinances these improvements could only have been enforced *after* the buildings were occupied, and then only partially and in an imperfect manner.

As will be seen, nearly one-half of all the houses constructed were of the class known as "flats," and with very few exceptions are rented for $20 to $125 per month for *each* flat or family, a sum beyond the ability to pay, of the clerks and so-called middle class of merchants, employés and mechanics in our city.

This brings us face to face with the unpleasant fact, (as mentioned in my last annual report,) that practically *no* provisions are being made to house the *toiling* multitude of wage-workers in our city, and in order that a clerk or other small-salaried man may procure suitable rooms for the proper accomodation of his growing family, he is compelled to travel far toward the city's suburbs and suffer the inconveniences of spending hours each in day going to and from his place of employment in addition to a considerable expenditure of cash. The laboring classes employed about our docks, stores and warehouses in the central portion of the city cannot go to the suburbs, nor any locality of any considerable distance from their places of employment, because of their salary being so small as to preclude them from paying any portion of it for transportation, and so it follows that they are compelled to remain in the down-town overcrowded and poorly-lighted tenement quarters, with immoral surroundings and too generally poor school accomodations for their children. It cannot be questioned but that buildings of four or more stories in height could be erected on cross streets in close proximity to the business centers and arranged in small but light, airy and convenient apartments, most thoroughly provided in a sanitary way, and rented in suites, for 8 to 12 dollars per month for each family, and which would return a *net* percentage on the investment far above an equal

investment in other classes of houses in any portion of the city distant from the trade centers.

If it be possible to build with great profit and *in the most scientific manner*, whole cities like Saltaire and Pullman for the *exclusive* housing of operatives (employés) of large manufacturing and commercial institutions, then why is it not only possible, but highly profitable, and withal a very philanthropic enterprise to erect blocks of tenement houses on the most approved plans for the wage-working poor in this city, and thereby obliterate such localities as the "Patch" and "Cheyenne?" Such an enterprise would abolish these rookeries by causing them to be unsought for as places of habitation; it would improve the morals of our lower classes by improving their surroundings and education and largely reduce the mortality among this class of our populace.

LODGING HOUSES.

The improvement of the so-called lodging-houses in many of the basement or cellar stories along a few of the central streets has been the cause of much labor on the part of this department in forcing the owners to keep them in a fair sanitary condition and prevent excessive overcrowding.

Not a few have have been declared uninhabitable and the owners compelled to permanently vacate them and estopped from further using them for such purposes.

In other instances the entire bedding has been burned or otherwise destroyed and replaced with new, but a less number of beds. However, real, genuine *satisfactory* results cannot be obtained in this class of work until the city ordinances are so amended as to entirely prohibit any person from sleeping or dwelling in any basement or cellar *under any circumstances whatever.*

Respectfully,

W. H. GENUNG, *Chief Inspector.*

BUREAU
OF
TENEMENT AND FACTORY INSPECTION.

OSCAR C. DEWOLF, M. D.,

Commissioner of Health:

SIR:—I herewith present a report of the work performed by the "Tenement and Factory" inspectors for the year 1884, including about all classes of sanitary work of the health department as required by the following ordinance, except the scavenger service and the care of contagious diseases.

Section 686 of the city ordinances declares that, "It shall be the duty of the commissioner of health to enforce *all* the laws of the state and ordinances of the city in relation to the sanitary regulations of the city, and cause all nuisances to be abated with all reasonable promptness, etc., etc.

This ordinance is very general in its character, but there are many others which apply directly to specified unsanitary conditions in all classes of buildings; however these ordinances should be so amended as to provide for abatements in a special manner. This annual report shows a division of the sanitary work into three separate parts, viz:

First. The sanitary work performed in *occupied* places of habitation and which includes *all* buildings wherein any person may dwell or lodge.

Second. The control of the sanitary conditions and safety as relates to egress, protecting machinery and storage of dangerous materials in places of employment or service.

Third. The exclusive control under the state laws of all the sanitary arrangements or conditions, such as the heating, lighting, ventilating, plumbing and drainage to be provided in

every building within the city, during its construction and which is to be used as a place of habitation.

Section 1347, of the city ordinances, declares "that no person shall hereafter erect, or cause to be erected, or converted to a new purpose by alteration, any building or structure which, or any part of which, shall be inadequate or defective in respect to ventilation, light, sewerage or any of the usual, proper or necessary provisions or precautions for the preservation of health."

The state laws invest the Commissioner of Health with authority to control all the sanitary arrangements to be provided in any habitable building within the city.

The enforcement of these laws by the inspectors has been the means of accomplishing more valuable sanitary work than by all other ordinances combined, in that by their enforcement all improvements made are of a *permanent character*, and place the building (except in cases of accident) in a permanently good sanitary condition, thereby benefiting all occupants uniformly throughout the city.

The construction of dark, damp, unventilated living rooms has been wholly prohibited for the past two years. All water-closet rooms are provided with sufficient external light and ventilation and which are never permitted to be in any way directly connected with any habitable room. In fact, all sanitary conditions are enforced which are conducive to the health of the occupants.

During the past year much work has been accomplished in greatly improving the sanitary conditions in a number of our public school buildings, which in some instances amounted to an entire remodeling of the drainage systems and the heating and ventilating apparatus.

One school building was torn down, as recommended by this

department, to be replaced by a larger and more modern structure. This work will be vigorously prosecuted, with the hope of placing *all* the school buildings in the best possible sanitary condition during the present year.

As will be seen from the following tabulated reports, the inspectors have, during the year, made a total of 28,092 examinations in places of habitation and employment, and filled proper detailed written reports for each building and firm. These examinations are exclusive of the work performed under the state laws relating to the sanitary supervision of 3,240 new buildings in course of construction for habitation, correct plans for 1,941 of which have been filed with this department for future reference, but which cannot appear in this report in detail because of the voluminous form of such reports. The owners or occupants of 1,932 houses of all sizes, each containing from one to twenty families, also employés of 483 shops and stores complained during the year of insanitary conditions in the plumbing, drainage, ventilation, etc., existing in said buildings, for each of which a special examination was made by an inspector and the defects properly corrected.

But this number of complaints does not cover half the work of house-inspection, there having been 4,394 houses containing 10,445 families reported in detail, besides the great number of cottages and dwellings which were greatly improved in their permanent sanitary arrangements through verbal notices or suggestions of the inspectors.

The sanitary inspections are made from house to house, but the record of special reports *in detail* covers only the places of habitation found in bad sanitary condition and otherwise contrary to the health-regulations and for the abatement of which a written notice was served. Whenever a sufficient number of officers (inspectors) can be detailed to examine into

the sanitary condition of *all* buildings, then a complete street-list, with every building used for habitation or employment, will be placed on record, in order to show the sanitary arrangements of each and all of them, together with the number, sex, age and nationality of the occupants.

Many portions of the city are in a poor sanitary condition from lack of proper drainage, and this department caused the laying of new street sewers in certain crowded districts of the 5th, 6th and 14th wards; also compelling the property owners to make proper sewer connections with their houses. In one district in the vicinity of the lime kilns in the southwestern portion of the city, a population of 6,500 persons was benefitted through such improvements.

18,438 places of employment (factories, stores, etc.,) were visited and detailed statistical written reports filed as required by law.

The employment of children under fifteen (15) years of age for more than eight hours a day is forbidden by ordinance, and the employers in factories comply with this requirement generally throughout the city. Improvements of a permanent character were effected in 4,229 buildings by all classes, and included the construction, repairs and cleaning of catch-basins, trapping and ventilating of house-drains, sewers, soil and waste pipes, ventilating bed rooms, work rooms, bath and water-closet rooms, supplying light and ventilating shafts, providing adequate water supply to tenements and factories, supplying proper "traps" for plumbing and drain pipes, guarding dangerous machinery, providing proper egress for factory employés, removing dangerous material from rooms occupied by factory employés, and many others of a miscellaneous character, but not specially named in the inspectors' reports. Very many more improvements were effected through verbal suggestions

of the inspectors and which were not placed on the books of record.

A considerable number of suits were brought against violators for non-compliance with the written notices served by inspectors, but the *ratio* of these suits is decreasing each year.

However satisfactory this work may have been (and the constant decrease in the mortality rate is one proof of the satisfactory results) there is yet much to be done, when it is known that there are 70,000 dwellings [U. S. census of 1880 reports 61,069], and more than 25,000 places of employment, all of which should be regularly examined at stated intervals, as the law provides, by a competent officer of this department who should compel the proper persons to immediately remedy all insanitary defects.

The most varied and complicated work of the inspectors is in the dwellings and tenement houses, more than four thousand of which have been examined and much improved during the year. Nearly all of these houses were located in the so-called "patches" and required the constant attention of all the inspectors for the greater part of the year. As there is about eleven thousand tenement houses in the city, it will readily be seen that there should be provided at least one inspector for each ward, in order to carry out the provisions of the ordinances throughout the city, which covers an area of 36 square miles and contains a population of 650,000, with a yearly increase of 30,000.

Section 1352 of the municipal code requires a record to be kept, and an annual report to be made to the City Council, which shall specify:

1. Number of males and females of all ages employed, also number of boys and girls under fifteen years of age employed.

2. The number of violations of this ordinance regulating the sanitary supervision of all places of habitation and employment, and the number of abatements, with detailed account of improvements effected.

3. General and special sanitary condition of all people in labor or service in factories, workshops, stores warehouses, elevators, yards and domestic work-rooms.

4. Number and kind of dangerous and unhealthy employments, and diseases of the several trades and occupations.

5. Statistics of labor, wages and cost of living, in connection with the several trades and occupations specified in the reports of the factory and tenement house inspectors.

Such reports shall be printed as public documents for the information of the people.

This requires the work of a competent recorder of statistics to classify all these reports, notices, and suits entered by the inspectors, and enter them in proper books of record, also to make weekly and quarterly reports, etc.

In the greater number of buildings erected as habitations for the working classes, the rooms are generally much too small, and the City Council should limit, by ordinance, the size of living and sleeping rooms as to cubic air-space and floor space for each occupant, to guard against preventable sickness from over-crowding.

Thousands of frame houses of all sizes have, in course of time, become untenantable through sagging of sills, doors, window frames, and other parts, also rotting of wooden floor-timbers, placed too near the ground, fouling of wooden drains and other causes, exhausting the vitality of the occupants by exposure to the elements at all times in a manner which, in many instances, is far more debilitating on the human system than the work which affords a living. We have no ordinance

compelling the thorough repairing of these old rookeries, shanties and dwellings, so as to prevent the draught through the countless openings made by broken plaster, floors, window glass and "improperly fitted doors and windows," and an ordinance covering this defect should be enacted without unnecessary delay.

The *Act* of May 30th, 1881, for the "Regulation and inspection of tenement and lodging houses and other places of habitation, declares in section 3: that, "it shall be unlawful for any plumber or other person or persons to cover up or in any way conceal such plumbing work in or about such building or buildings until the Health Commissioner approves of the same," and makes the penalty for violation a fine of from one to two thousand dollars for each offense. There is not a shadow of doubt but that this *Act* has been of almost inestimable value to this department in *preventing* the construction of permanent insanitary conditions, and also the means of improving the standard of the plumbing work of this city fully one hundred per cent.; but this *Act* should be so amended as to compel all plumbing to be placed, whenever practicable, in sight at all times and always easily accessible. This would encourage the plumbers to perform better work and to use better material; it would also educate the general public to know good work and material when seen; it would greatly improve the sanitary condition of the habitations, it would facilitate repairs and save much vexatious delay in locating leaks, stoppages, and many damaging defects in the prevailing present method of concealed and mysterious plumbing. At the date of the passage of this *Act*, it was the prevailing habit among many plumbers to conceal a waste or service pipe whenever it was possible to do so, thus offering an opportunity to apply almost worthless work, and still worse material, and providing, in course

of time, a sure means of seriously damaging the building in which it was placed, and making of the whole a complete mystery to any except the person who planned and executed the plumbing work. And this was done, first, because the owner desired to have the work performed as cheaply as possible, meaning perhaps for as little money as possible for what *he* deemed good work, said owner not having a knowledge of *good* work when seen or described; also because the competition among the contracting plumbers was so vigorous as to *seem* to make it necessary to apply the very cheapest material and workmanship in order to leave a living margin for themselves.

Section 2 of this Act provides that, "it shall be the duty of any plumber * * to receive instructions from the Health Commissioner before commencing the work in said buildings, etc., but these instructions relate only to the *method* of doing the work. This section should be so amended as to regulate the *material* used, at least to the extent that it shall be sufficient in size, strength and quality.

The state law or city ordinances or both should be so amended as to provide for metal sewer or drain-pipes for conducting the usual sewage of all places of habitation to some point outside the building walls; said drain-pipes to be in full view at all times, and in no instance to be buried in the earth or in any way concealed or covered up.

In cases where a cellar or excavation of any kind shall be deemed desirable, it would necessitate a double system of drains for sub-soil and storm-water drainage, both of which could be properly connected at some point outside the building walls. However, if the metal system had proper capacity (which would greatly increase the cost) the surface and storm-water and usual sewage of premises could be discharged into street

sewer through this system, and the sub-soil drains could discharge into properly constructed gravel or sand wells or trenches. Too little attention is given to sub-soil drainage in large cities, where the earth is necessarily impregnated with filth, dangerous to health.

I believe that next to the four outside walls of a building the drainage is the most important, for without proper drainage any city building is practically unfit for human habitation. The ordinance relating to drainage should be so specific as to provide for not only the natural sewage of a building and the storm-water falling upon it and the connecting grounds, but should also provide for the sub-soil draining of the entire lot covered by the building to a depth of two or more feet below the foundation walls. Proper provision should be included to prevent the construction of walls in such manner as to become damp from the foundation upwards. Damp air and ground air should never enter a building to fill it with a disagreeable stuffy odor, which is alike unpleasant and dangerous to the health of the occupants. Another and not the least defect in the construction of house-drainage in this city is the universal arrangement of constructing one or more grease-receiving basins for each building.

These are usually constructed of brick in a careless manner, and rarely if ever water-tight, thus permitting the surrounding earth to become thoroughly saturated with the vilest filth. I can see no good reason for not abolishing these cesspools, which require constant attention and care to remove and bury their accumulating filth, thereby causing a very disagreeable if not dangerous stench for many hours during removal, or if permitted to over-accumulate, the drain becomes choked and the entire sewerage of the premises is necessarily discharged on the surface of the ground *under the building*.

This improvement, if made compulsory by law, would very much improve the general sanitary condition of habitations almost if not quite equally with the abolishment of the construction of privy vaults.

The sewage from a building of any kind, and especially a place of habitation, should be quickly removed from the premises to a point beyond the drain trap and into the street sewer, to prevent dangerous gases being generated from decomposing matter found in all drains. Any substance permitted to enter a private sewer or drain should never be retained in a "catch-basin" or cesspool a long enough time to allow it to become a mass of putrid decomposition, for this is the principal creator of sewer gas in houses. There is but one proper way to prevent this; that is, to prevent the accumulation, by prohibiting the construction of such cesspools, each with a capacity of several hundred pounds of filth.

Much thought and attention has been given to the proper housing of the renting public and more especially the working classes, such as clerks, book-keepers, mechanics, etc. The great expense precludes the erection of *small* tenement quarters provided with modern conveniences and thorough, necessary sanitary arrangements, except in large blocks.

And for many other reasons this would seem to be at least a partial solution of the problem of "what can best be done to provide proper homes for the renters?"

The practical application of this theory would appear in the plan of a model tenement block, similar to the following:

Taking a piece of ground, say 125x125 feet, running to an alley, there could be erected thereon a large fire-proof building in the form of a hollow square, and composed of a basement or cellar for storage purposes and heating and laundry apparatus; next, a high story for stores, shops, etc., with dwelling

apartments in rear; then four or more stories to be used exclusively for tenement apartments, the top or attic story to be used for storage and drying rooms, or play rooms for children if desired. Such a building could be constructed in such a manner as to provide external light and ventilation for each and every room. The apartments to be so divided as to provide from two to four rooms with necessary closets for each family.

The water-closets could be erected in tiers (4 in number), one over another, with external light, and an adequate shaft artificially ventilated. A strong but airy iron balcony could encircle the large court at each floor, with connecting iron stairs for escape from fires or other accidents.

Suitable and sufficient elevators could be provided for use of occupants and for elevating fuel, etc. A janitor-engineer would have entire care and control of the entire building, to see that all its several mechanical parts were kept in perfect working order.

A building of this character, as compared with the present three-story tenement house, would produce a revenue in excess of the old style building exactly in amount to all rents received *above* the third story, and all these fourth and higher stories occupy the *same* ground as the lower ones, and therefore cost nothing for that item of expense.

By the use of elevators, the upper apartments are quite as accessible as the lower ones, and the building being fire-proof, makes them quite as safe and certainly more desirable and pleasant, because of better light and air, and being far removed from the dust, noise and bustle of the adjoining street.

In the present style of tenement building without a janitor's care, much trouble is caused to owners and occupants through careless and malicious actions of an unsanitary character; but

which would be obviated in a large tenement block where *all* arrangements in common use by tenants are under the supervision of a competent person responsible to the owner, which owner is responsible to the health authorities. Such tenement blocks should be erected in or within easy distance of the commercial and manufacturing centres, to save expense of transportation to the employés, and also the time of going and coming to and from their places of employment; also that his family may have proper police protection and live within a reasonable distance from schools.

The moral benefits derived from the construction of such tenement blocks, with the privacy they afford to each and every family, can hardly be over-estimated, when taken into connection with the more cleanly personal habits to be obtained under these healthful surroundings.

The sense of shame becomes blunted in overcrowded, filthy, and ill-arranged apartments, and children become exposed to bad examples, which are apparently easier to follow than good precepts. It would seem proper that our large employers of labor should start this new departure in building tenement blocks for their multitudes of employés who would gladly remain their tenants.

The builders of these large blocks would greatly benefit the community at large by compelling the owners of inferior buildings to improve them to a proper standard of comfort and accommodation.

Respectfully,

W. H. GENUNG,
Chief Inspector.

REPORT
OF THE
REGISTRAR OF VITAL STATISTICS.

TO OSCAR C. DEWOLF, M. D.,
Commissioner of Health :

SIR :—I have the honor to present herewith the following annual report for the year ending December 31, 1883.

There ocurred during the year 11,555 deaths—a weekly average of 222. Of this number there were born in Chicago 6,257, and 1,554 elsewhere in the United States. There were 1,423 natives of Germany, 900 of Ireland, 150 of Canada, and 191 of England; 993 were natives of other foreign countries. One was born on the Atlantic Ocean, and one on the Mediterranean Sea, and the nativity of 85 was unknown.

Of the decedents, 3,850 were infants under one year of age, and 5,875 were children under five years of age, making 50.84 per cent. of the total mortality under five years of age. There were 1,121 over sixty years of age, including one over one hundred.

The death rate for the year was 19.26 per 1,000 inhabitants, estimating the population at 600,000.

Respectfully submitted,

M. K. GLEASON, M. D.,
Registrar.

MORTALITY REPORT

OF THE CITY OF CHICAGO

FOR THE YEAR ENDING DECEMBER 31ST, 1884,

To OSCAR C. DEWOLF, M. D.,

Commissioner of Health.

There occurred during the year 12,471 deaths—a weekly average of 240, and during the preceding year 11,555, a weekly average of 222.

Of this number, in 1884, there were born in Chicago 6,997, and 1,537 elsewhere in the United States. There were 1,495 natives of Germany, 922 of Ireland, 157 of Canada, and 217 of England; 1,069 were natives of other foreign countries. One was born on the Atlantic Ocean; and the nativity of 76 was unknown or not given in the certificates of death.

Of the decedents, 4,179 were infants under one year of age, and 6,666 were children under five years of age; making 53.45 per cent. of the total mortality under five years of age. There were 1,208 over sixty years of age, including two over one hundred.

The death rate of 1884 was 19.80 per 1,000 inhabitants, on a basis of 630,000 population, according to the school census taken in July of the same year. The death rate of the preceding year was 19.26 per 1,000 inhabitants, estimating the population at 600,000. The average death rate for the last five years was 21.96 against 18.51 for the preceding quinquennial period.

For further detailed statistics relating to causes of death, by wards and months, ages, nativities, sex, color, still-births, and social conditions, reference is made to the accompanying thirty pages of the report.

The best criterion of the sanitary condition of a community is best ascertained by showing the percentage of zymotic diseases and the number of deaths under five years of age, compared with the total mortality.

There were 4,216 deaths from zymotic diseases in 1884, making 33.81 per cent. of the total mortality for that year, against 3,666 deaths from similar causes, and a percentage of 31.73 for the year 1883.

In 1884, the greatest mortality from these causes occurred in the Sixth Ward, being 665 or 12.12 deaths to 1,000 population against seventy-three in the Eighteenth Ward (where the least mortality took place), with only 2.68 deaths to every one thousand of its population. Again, in the Sixth Ward, the percentage of the preventable diseases amounts to 42.82 of the total mortality, whilst that of the Eighteenth Ward is only 27.34 per cent.

In 1884, there were 1,111 deaths of children under five years of age in the Sixth Ward, making 71.54 per cent. of the total mortality, whilst in the Eighteenth Ward the percentage amounts to only 44.57.

M. K. GLEASON, M. D.,
Registrar of Vital Statistics.

HEALTH DEPARTMENT.

SMOKE INSPECTOR'S REPORT.

TO OSCAR C. DEWOLF, M. D.,
Commissioner of Health.

SIR:—Having been assigned, in addition to other duties, to the enforcement of Sections 1650, 1651, 1652 of the municipal

code, known as the Smoke Ordinance, I respectfully submit the annexed report of my efforts to rid the city of this nuisance.

LOUIS MERKI,
Inspector.

SMOKE INSPECTOR'S REPORT FROM JULY 1882, TO DECEMBER 31, 1884.

Notices served to abate smoke nuisance	2,014
Personal visits made and violations observed	1,620
Complaints made by communications	264
Complaints by persons in office	130
Abatements of the nuisance	614
Abatements not satisfactory	89
Suits commenced (but not prosecuted) nuisances abated	268
Suits prosecuted	83
Estimated number of boilers in use in city	6,000

The Smoke Ordinance was passed by the City Council, April, 1881. Following is a copy of the Ordinance:

"SECTION 1650.—The emission of dense smoke from the smoke stack of any boat or locomotive, or from any chimney anywhere within the city, shall be deemed and is hereby declared to be a public nuisance: Provided, that chimneys of buildings used exclusively for private residences shall not be deemed within the provisions of this ordinance."

"SEC. 1651.—The owner or owners of any boat or locomotive engine, and the person or persons employed as engineer or otherwise, in the working of the engine or engines in said boat, or in operating such locomotive, and the proprietor, lessee and occupant of any building, who shall permit or allow dense smoke to issue or be emitted from the smoke stack of any such boat or locomotive, or the chimney of any building within the corporate limits, shall be deemed and held guilty of creating a nuisance, and shall for every such offense be fined in a sum not less than five dollars nor more than fifty dollars. Sections 1650, 1651, and 1652 shall take effect and be in force from and after May 1, 1881."

"SEC. 1652.—It shall be the duty of the Commissioner of Health and the Superintendent of Police to cause Sections 1650 and 1651 of this article to be enforced, and to make complaint against and cause to be prosecuted all persons violating the same."

Since the passage of the foregoing ordinance there have been over two thousand notices served to abate smoke nuisances. During the same period there have been seven hundred smoke-preventing appliances attached to furnaces, of which fully six hundred are now in successful operation; all doubt as to the feasibility and legality of the ordinance have been dispelled, and business men generally are beginning to appreciate and approve the necessity of the ordinance. Eighty-three suits have been prosecuted against violators of the ordinance, but in all cases the nuisance was abated before the day set for trial. I have at all times endeavored to abate the nuisance rather than cause fines to be imposed. Great progress has been made within the last two years by the improvements of smoke-preventing devices and the invention of new ones; nowhere in the United States have they attained such a state of perfection in so short a time as in the city of Chicago. I have personally examined within two years over sixty different devices, but only six of them have proved successful, and each of the six now in successful operation differs in merits generally, but all abate the smoke nuisance. A great aid to any device is careful and judicious firing; but this essential requirement is wanting in three boiler-rooms out of every four. First, only practical engineers should have charge of boilers and furnace-rooms. More fuel is wasted in many buildings than the salary of two engineers amounts to by unskilled firing. I find men in charge of boiler-rooms under buildings, where hundreds of people congregate daily, that do not know the difference between a direct and a return-flue boiler (thanks to the inventor of safety-valves). All they know is to fill the furnace full of coal and watch the steam gauge and peruse cheap works of fiction, often being so ingrossed in the contents thereof that the furnace is reduced to ashes, and the steam run down before

firing; then overfeeding the furnace to get steam, these chimneys vomit 15 to 20 per cent. of the coal in the form of smoke into the air. A good, skilled fireman or engineer is half of any smoke consumer, unless it be an automatic one. Another cause of neglect in engine and furnace-rooms is the indifference of owners and proprietors to include daily the furnace-room in their rounds through their business offices. It may not only have a tendency to prevent the emission of dense smoke, but the coal bill may be reduced by these observations. The fuel should always be near the furnace, so that in firing the furnace doors are not kept open longer than absolutely necessary. It will also keep the fuel warmer and result in combustion more readily. Firing should be performed often and light, to insure perfect combustion, thereby getting the full benefit of the fuel consumed. With the devices now in use all grades of soft or bituminous coal can be successfully used for steaming purposes, and conform to the requirements of the smoke ordinance. Citizens generally should observe the following rules in selecting a device:

First. Its application to your furnace and cost.

Second. Its durability and fuel consumption.

Third. Its steaming capacity and effect on boiler and furnace.

Fourth. Does it prevent the emission of dense smoke?

The construction of a furnace, boiler-settings, grate-bars and draught are essential points, and it is with a degree of pleasure that I observe this improvement within the last year in new buildings erected, and those now in course of construction. An engine and furnace-room should be large and well lighted and ventilated. It should be made attractive instead of a dungeon under a sidewalk or in a sub-cellar, without light or air, where the heat is so intense and air so stifling that firemen are

often obliged to leave their furnace-rooms for fresh air. This condition of affairs exists to an alarming extent in our business blocks and workshops, and is in many places ample excuse for neglect. As a whole, the results for the last two years are apparent to every citizen, and with continued enforcement of the ordinance the once great source of the smoke-nuisance will be a thing of the past.

Very respectfully,

LOUIS MERKI,

Inspector.

BOOK REVIEWS.

ON A NEW METHOD OF RECORDING THE MOTIONS OF THE SOFT PALATE. *By* HARRISON ALLEN, M. D., *Professor of Physiology in the University of Pennsylvania. Extracted from the Transactions of the College of Physicians of Philadelphia. Third series, volume vii. Octavo, pp. 34. Philadelphia:* P. BLAKISTON, SON & CO. 1884.

Within the few pages of this monograph are comprised the results of very many hours of patient toil and highly original research. A straight rod, eight inches in length, is passed through the nose, from before backward, until its bulbous extremity reaches into the naso-pharynx. The end which remains without the nostril is then elevated so that the rod is brought in contact with the anterior nasal border, and it is there retained by a wire attachment to a head-band, such as is ordinarily employed for the support of laryngeal head-reflector. With the rod in this position, each elevation of the

palate which is caused during phonation and by the acts of exhaling, coughing, deglutition, etc., produces a corresponding depression of the external end of the rod, and *vice versa*. The free end of the lever is brought in contact with the carbon covered cylinder of the Ludwig kymographion, and the cylinder is made to revolve by means of the clock-work of the apparatus, when there appears a distinct tracing, similar to the markings of a sphygmograph.

Just as the sphygmographic tracing indicates the character of the pulse wave, so the tracing of the Palate-Myograph, as the new apparatus is designated, correlates with the varied movements of the soft palate in the articulation of the different sounds of vowels, different letters, words, and phrases.

It is suggested that the palate-myograph may prove useful in studying the mechanism of the soft-plate in disease as well as in health: in determining the degree of degeneration of the levator palate muscles in progressive dry aural catarrh, for the study of stammering, and for the detection of paralysis of the palate. It is also more than hinted that the method may be made available for the comparative study of language, for the instruction of the deaf, and for the formation of a system of logography. W. E. CASSELBERRY.

A HAND-BOOK OF PATHOLOGICAL ANATOMY AND HISTOLOGY. *By* FRANCIS DELAFIELD, M. D., AND T. MITCHELL PRUDDEN, M. D. *Published by* WM. WOOD & CO., *New York.*

The authors in their preface claim the present work to be a second edition of what has been known as "Post Mortem Examinations and Morbid Anatomy, by Francis Delafield." So much new material has been added that it may properly be regarded as a new work rather than a new edition of an old one.

The subjects discussed by the authors are comprised in four parts. The first is devoted to a description of the method of making post mortem examination, both of the adult and of new-born infant, as well as of cases of suspected poisoning. The methods of preserving and preparing tissues for future study is also given here.

The second part embraces the subjects grouped by other authors commonly under the name of *general pathology*. In this part there is very much that is new, or not to be found in the first edition.

The third division embraces the morbid anatomy of the organs, and the fourth, "lesions found in the general diseases; in poisoning and in violent deaths."

Much must be said in praise of this work. It describes briefly, clearly and pleasantly a great variety of lesions. It is unusually well illustrated. The cuts have been made by processes of photo-engraving, from drawings, by the authors themselves, from actual specimens. They are particularly good as drawings of microscopical objects.

A single volume covering so extensive a subject as this can not be so exhaustive as the more extensive and complete works, such as we already have. It will, however, be found both by students and practitioners an excellent hand-book.

The subject of inflammation is not treated of as we ordinarily find it in other works on pathology, and we think the new method is not commendable. No description is given of typical inflammation, but eight varieties are described separately. A student beginning the study of pathology with this text-book would probably wonder why these eight different lesions were called inflammations and what there was in common to them all. They are all *products* of inflammation. In order to make this manifest it would have been better to have

pointed out distinctly the factors common to all, and then to have made plain the differences which constitute these varieties.

The appearance of the latter portion of the book, especially, is marred by the amount of blank paper that is left at the top and bottom of some pages. For instance, gout is discussed in nine lines, which is all the printing that is placed on one page. The book might have been much smaller, without sacrificing the subject-matter, if such blank spaces had been omitted. N. S. D., JR.

MINOR SURGICAL GYNECOLOGY. A TREATISE OF UTERINE DIAGNOSIS, AND THE LESSER TECHANICALITIES OF GYNECOLOGICAL PRACTICE, INCLUDING GENERAL RULES FOR GYNECOLOGICAL OPERATIONS AND THE OPERATIONS FOR LACERATED CERVIX AND PERINEUM, AND PROLAPSUS OF UTERUS AND VAGINA. *By* PAUL F. MUNDÉ, M. D. *Octavo, pp. xxii, 552. New York:* WILLIAM WOOD & CO. 1885. *Chicago:* W. T. KEENER.

The second edition of Dr. Mundé's MINOR SURGICAL GYNECOLOGY supplies a want felt for a long time by every practitioner who has given attention to the diseases of women. The details of gynecological technique and practice are faithfully described, in terms which every one can comprehend. The labor involved in the preparation of such a book is simply enormous. Dr. Mundé has placed the profession under lasting obligation for the production of a book which has no peer in German, French or English.

The books is not without faults; omissions are numerous. BANDL's methods of treatment of uterine inflammations deserve consideration. DR. D. BERRY HART makes the follow-

ing assertion in his "Atlas of Female Pelvic Anatomy" with reference to the genu-pectoral posture: "There is no assertion more often made than that the retroverted unfixed uterus becomes replaced, *i. e.*, anteverted, when the genu-pectoral pasture is assumed and the vaginal orifice opened up. This is an undoubted error. The uterus really moves further from the pelvic outlet, and becomes more retroverted." While Dr. HART's statement may be taken *cum grano salis*, it deserves attention.

In the selection of terms, and structure of sentences, there is room for criticism. Finally, the nominative case of the pronoun of the first person recurs with a frequency at once unpleasant and in bad taste. W. W. J.

A TREATISE ON ABDOMINAL PALPATION, AS APPLIED TO OBSTETRICS, AND VERSION BY EXTERNAL MANIPULATIONS. *By* A. PINARD, M. D., *Associate Professor in the Faculty of Medicine of Paris, etc. Paris, 1878. Translated by* L. E. NEALE, M. D., *Chef of the Obstetrical Clinic and Demonstrator of Obstetrics in the University of Maryland. 12mo, pp. 101. New York:* J. H. VAIL & CO. 1885.

The raison d'etre for Dr. NEALE's translation of PINARD's lectures on Abdominal Palpation is obvious. We have many excellent English text-books on obstetrics, but no adequate exposition of abdominal palpation as practiced in Austria, France and Germany. The papers of MUNDÉ, RICHARDSON, WRIGHT, CHADWICK and WILSON, while meritorious, have not supplied the hiatus.

We venture to predict for the brochure before us, great practical utility to the profession, and extensive adoption as a text-book. W. W. J.

BOOKS RECEIVED.

A Text-Book of Medical Physics, by John C. Draper, M.D., LL.D. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co.

Cholera, by Alfred Stillé, M.D., LL.D. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co.

A Text-Book of Physiology, by M. Foster, M.A., M.D., F.R.S. Third American from the fourth revised English edition. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co.

A System of Practical Medicine, by American authors. Edited by William Pepper, M.D., LL.D. Vol. II. General Diseases (continued) and Diseases of the Digestive System. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co.

Elements of Modern Medicine, by R. French Stone, M.D. New York: D. Appleton & Co. Chicago: Jansen McClurg & Co.

The Technology of Bacteria-Investigation, by Charles L. Dolley, M.D. Boston: S. E Cassino. Chicago: Jansen, McClurg & Co.

Inebriism, a Pathological and Psychological Study, by T. L. Wright, M.D. Columbus, Ohio: W. G. Hubbard. Bellefontaine, Ohio: Dr. T. L. Wright.

Diseases of the Tongue, by Henry F. Butlin, F.R.C.S. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co.

A Trentise on Epidemic Cholera and Allied Diseases, by A. B. Palmer, M.D., LL.D. Ann Arbor, Michigan: Register Publishing House.

Renal and Urinary Affections, by W. Howship Dickinson. New York: William Wood & Co. Chicago: W. T. Keener.

Poisons: Their Effects and Detection, by A. W. Blyth. Vols I and II. New York: William Wood & Co. Chicago: W. T. Keener.

A Practical Treatise on Diseases of the Kidneys and Urinary Derangements, by Charles Henry Ralfe, M.A., M.D. Philadelphia: Blakiston, Son & Co. Chicago: W. T. Keener.

An Introduction to the Study of the Diseases of the Nervous System, by Thomas Granger Stewart, M.D. Philadelphia: J. B. Lippincott & Co. Chicago: W. T. Keener.

Cancer: A Study of Three Hundred and Ninety-Seven Cases of Cancer of the Female Breast, by Willard Parker, M.D. New York: G. P. Putnam's Sons. Chicago: W. T. Keener.

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PAMPHLETS RECEIVED.

Report of the Proceedings of the Tennessee State Board of Health.

Bacterial Pathology. By Watson Cheyne.

Deviation of the Nasal Septum. By J. W. Gleitsmann, M.D.

Surgical Hemorrhage. By J. W. Gleitsmann, M.D.

Third Annual Report of the Provincial Board of Health of Ontario.

A Case of Poisoning Resulting from Chloroform taken Internally. By Llewllyn Eliot, M.D.

Shadows in the Ethics of the International Medical Congress. By Levi Cooper Lane, A.M., M.D.

Voice in Singers. Carl H. Von Klein, A.M., M.D.

Proceedings and Addresses at a Sanitary Convention held at Lansing, Mich., March 19th and 20th, 1885. ———, Dec. 2 and 3, 1884. ———, Apr. 17 and 18, 1884.

Co-operation of Citizens in Preventing the Spread of Disease. By Rev. W. A. Masker.

The Public Health Service of Michigan. By Hon. John Avery, M.D.

Transactions of the Louisiana State Medical Society.

An Address on Cholera Infantum. By Wm. Berry Watson, A.M., M.D.

Duty of the State Towards the Medical Profession. By Conrad George, M.D.

ABSTRACTS AND EXTRACTS.

THE PROGRESS OF PHARMACOLOGY AND THERAPEUTICS.

Such was the subject to which Professor Fraser, the President of the Section of Pharmacology and Therapeutics at the annual meeting of the British Medical Association, addressed himself in opening his Section. Few men could be found better adapted to descant upon the renaissance of pharmacology, or to point out the rational delimitation of that science. The peculiarity of the position of the Section, and its recent growth out of the older Section of Medicine, may seem to some minds to need an apologist, or, it may be, an advocate who would clearly indicate how the new Section not only has long been needed, but presents earnest of a most important and valuable future. Certainly Professor Fraser's words amply prove the positions in question. "Medicine," said the President, "is a progressive subject," and with this progress is involved its inevitable division into departments, among which, that devoted to pharmacology and therapeutics has asserted its claim to individual recognition among the sections. That such a claim has been preferred, and has received a tardy acceptance, seems incident to the very nature of the subjects. This view also is confirmed when we glance at the history of pharmacology. As is pointed out in the address, there are two ways of learning therapeutics; the one by clinical study, the other by pharmacological research. The clinical study involved too many and complex issues ever to lead to definite, at least to scientific results; so that, until

resort was had to direct experiment upon the normal organism, and physicians learned therefrom what where the physiological action of drugs, no sure advance could be obtained in therapeutics. The older "systems of medicine" teem with what we at the present day regard as rank absurdities; the remedies were less studied than were the general systems of treatment, while the systems themselves were based upon pure speculation, without any attempt being made to bring the matter to the test of actual experiment Bichât and Magendie recognized the necessity for ascertaining the action of remedies by experiments, and thus founded the science of pharmacology. But the practical business of curing disease must be furthered by such research, or the hold of pharmacology upon so preeminently practical a profession as that of medicine would be ephemeral, even to the vanishing point. Here Professor Fraser entertains no hesitating position: "precision," he assures is thus attained in administration, errors in selection (of remedies) will be avoided * * * successful applications will be possible where the pathological changes are of a simple kind.

A further development of this important address, is the stress laid upon the importance of recognizing and studying a pathological physiology. Morbid anatomy, so closely and zealously pursued, has replaced, for some, inquiry into the physiology of perverted function, of processes originating out of conditions nonexistent in the normal organ, or accruing upon actual new development of tissue. Save in so far as semeiology busies itself with the actual results of morbid processes, some manuals, and many clinical lectures, take little cognizance of such physiological problems. Pharmacology, which in one way conducts its researches by exciting departures from the physiological standard through the administra-

tion of drugs, naturally attaches especial importance to the study of the phenomena of the living organisms during disease. Through the successful prosecution of such a study, moreover, can therapeutics alone hope to treat disease. Without depreciating the older method, namely, that of administering a remedy, and observing its effect, it must be admitted that researches into pharmacological domains present far greater opportunities of attaining to the exactness and precision to which Professor Fraser alludes. He sees no reason why the physician of the future should not use his agents with the same certainty and delicate accuracy which characterizes the operations of the engineer. We heartily coincide in the wish for so happy a consummation, and believe that the institution of the Section of Pharmacology and Therapeutics, especially when its deliberations are presided over and directed by practical pharmacologists like Professor Fraser, will do much in promoting so desirable an end.

Undoubtedly, the progress of this department of medicine is at present hampered and crippled. It is pointed out, in the address, that the average student receives no instruction in the research-methods of pharmacology, and even, in many instances, has inculcated into his mind a certain depreciation of the scientific side of therapeutics. Materia medica and pharmacy usurp the place of pharmacology and therapeutics. Students who know nothing of the physiology of disease are, in their first or second year, doomed to "get up" certain cut and dried facts concerning plants and minerals; and upon these facts, added to an arbitrary posological table, they are examined. If they pass they are presumably cognizant of therapeutics, and, so far, apt at treating disease. When they advance a few steps further, they accumulate "tips" as to treatment, and their course is run. Such a picture will not, of course, be taken as

applying universally; many of the teachers in the schools are as thoroughgoing pharmacologists as is Professor Fraser himself, and their lectures abound with purely experimental results. But, even in their case, almost insuperable difficulties are offered to any practical demonstrations of the facts they teach. Laboratories, in which pharmaceutical research can be undertaken, are in England conspicuous by their absence; so that workers in this field must either curtail their efforts within the narrowest limits, or leave their practices to study at a foreign university. That the subjects of pharmacology and therapeutics should occupy a much later period in the student's curriculum than it does at present, no one conversant with teaching will gainsay, and Professor Fraser suggests the third session. Probably, it will be long before such a change be instituted—the more so, when we remember that the selection of teachers in our London schools is only too often made rather on account of the individual than because he knows anything of his subject. Pharmacology has even now extended its ramifications so widely, that only a special and prolonged study of its facts and its methods can render a man in any way competent to teach it to a class. In despite of this, we find lecturers who have neither shown taste or power for prosecuting research, and who pretend to no erudition save a fair knowledge of the *British Pharmacopœia.*

When Professor Fraser's paper has been widely read and carefully considered, we may hope that this far-sighted view of pharmacology will receive a more universal acceptance than has hitherto fallen to its lot, while the requirements for its progress being recognized will be met. There is no doubt that the influence of such an address cannot but be highly salutary. Although it may be urged that but little is said about the progress of pharmacology and therapeutics, yet what

is emphasized is really far more to the point. To indicate that pharmacology is a science, and capable of enlisting in its service scientific methods, is a great step.

One other point upon which Professor Fraser touched with a light hand is the inclination there is for men unfamiliar with the new Section to betake themselves and their papers, although dealing with pure therapeutics, to the Section of Medicine. Such an obvious mistake should be remedied by the secretaries when they receive the papers, as much valuable time and material is wholly lost through introducing discussions into wrong Sections.*—*British Medical Journal.*

DIGESTIVE FERMENTS.

The following extract is also from the *British Medical Journal:*

"The association was fortunate in securing the services of so eminently practical a pharmacologist as Dr. William Roberts, of Manchester, to deliver the address in therapeutics at Cardiff this year. Dr. Roberts has succeeded in establishing for himself a world-wide reputation, not only as a physiologist, but as a clinical teacher, and his work always commands attention and interest. His Lumleian lectures on the digestive ferments, delivered before the Royal College of Physicians of London in

* Whilst many of the complaints that have of late years been made of the defects of teaching, and the limited requirements of many American colleges for a degree in medicine, have not been without good cause, it seems apparent, from the foregoing extract from *The British Medical Journal*, that such defects are not limited to the American side of the Atlantic ocean, but that other countries, as well as America, find how difficult it is to secure that excellence in teaching, and that high degree of attainment among physicians and medical students, which all commend and which so few seem to reach. Let us hope that the formation of the section, to which the article alludes, has been one step forward, and in the right direction, and that it may be followed by others which shall ultimately mark an advance.—[EDITOR.]

1880, are usually regarded as a type of good scientific work. His address before the association, on the feeding of the sick, although more restricted in its scope, has been even more widely read, and has excited much comment, both in the medical and in the general press. We are glad to find that Dr. Roberts intends publishing, shortly, the results of the experiments on which he has been long engaged respecting the influence of salivary and peptic digestion on the "accessories," alcoholic beverages, tea, coffee, cocoa, etc., which are universally employed in one form or another as food. This is an inquiry of an eminently practical nature, the importance of which it would be difficult to overestimate. It is clearly a subject closely affecting the welfare of our patients, and one which must of necessity daily occupy the attention of every physician. Observations of this class, fortunately, do not necessitate the employment of expensive apparatus, and can be carried out almost as well in the consulting room as in the physiological laboratory. We believe that every medical man would do well to make a point of testing for himself the activity of the digestive ferments which he is in the habit of prescribing. It is a subject which will probably occupy the attention of the Collective Investigation Committee at no distant date. Dr. Roberts speaks of having recently had placed at his disposal a preparation, free from taste and smell, consisting of the pancreatic enzymes in a highly purified state. It is not hygroscopic, and may be kept unchanged for an indefinite period, freely exposed to the air. A substance of this nature, in the form of a white powder, was prepared some years ago by Fairchild, the American chemist, and has already been extensively used in this country. The pancreatic juice as is now well known, consists of four ferments: trypsin, which changes proteids into peptones in alkaline and neutral media; a curd-

ling ferment which curdles the casein of milk; the pancreatic diastase, which acts like extract of malt, changing starch into sugar and dextrine; and an emulsive ferment which emulsifies and partially saponifies fats. There can be no doubt that, as a digestive agent, extract of pancreas is vastly superior to any preparation made from gastric juice. "The pancreas," says Dr. Roberts, "excels the stomach as a digestive organ, in that it has has power to digest the two great alimentary principles, starch and proteids, and an extract of the gland is possessed of similar endowments." There can be no doubt that a series of carefully reported cases of different diseases treated by the pancreatic method of predigestion is a desideratum. It has proved useful in many hands in uræmic vomiting, gastric catarrh, pernicious anæmia, gastric ulcer, and pyloric and intestinal obstruction. Its introduction has probably done more than any other therapeutic measure of recent times to lessen infant mortality.

VERDICT OF COURT-MARTIAL.

The verdict of the court-martial in the case of ex-Surgeon General Wales has, says a Washington correspondent of the Philadelphia *Medical Times*, caused somewhat of a sensation. It will be remembered that Dr. Wales was tried by court-martial and found guilty of inefficiency and neglect of duty, because he failed to discover the rascality of several of his clerks, by which the Government was swindled out of a large amount of money, said to be over a hundred thousand dollars. The court failed to connect Dr. Wales with any of the frauds, but convicted him on a technicality, and imposed what is considered here a very severe penalty, out of all proportion to the offence. The high professional character of the late Surgeon General, and his successful labors for the advancement of the

medical staff of the navy, did not avail him; in fact, they seemed to render his offence the greater in the eyes of the court, which apparently held the opinion that the duties of the Surgeon General were simply to watch his subordinates and prevent their stealing. It seems by the confession of the principal criminal, the late chief clerk of the Bureau of Medicine and Surgery, that the frauds had gone on undetected for years under Dr. Wales's predecessors; but the court refused to go into the inquiry farther than concerned the latter's administration. To outsiders it looks very much as if Dr. Wales was the victim of a systematic persecution, of which the late Secretary of the Navy was the chief promoter. It is well known here that there was a violent personal antipathy between the two men, which may have been partly political, but it is believed to have largely arisen from social antagonisms. The penalty imposed by the court is suspension from rank and duty for a period of five years. It is said that Dr. Wales's counsel will not rest satisfied with this verdict, but will appeal the case to the Supreme Court.—*New York Medical Record.*

THE TOXICITY OF NORMAL URINE.

The toxicity of normal urine has been a disputed question for a long period of time. The weight of evidence is on the affirmative side, although the immediate poisonous principles are not known. Urea, uric acid, kreatin, and the potassium salts have in turn been incriminated. Recent investigations, however, point to the existence of poisonous alkaloids in normal urine. M. CHAUTEMESSE has summarized the history of the subject, which is well abstracted in two leading articles, appearing in the *British Medical Journal*, June 6th and July 4th, 1885.

Alkaloids have been found in putrid albumens, bile and normal muscle-juice by GAUTIER and POUCHET. BROUARDEL and BOTUMY published, in 1881, a distinguishing reaction between the vegetable alkaloids and the ptomaines. The alkaloids of putrefacton, in the presence of potassium ferricyanide and ferric chloride yield the Prussian blue coloration. In 1880, POUCHET found an alkaloid substance in normal urine, which, in combination with hydrochloric acid, formed double salts with platinum, gold and mercury. BROUARDEL's discovery that "alkaloids exist in the bodies of living beings, which have been generated in the alimentary canal, and probably elaborated by the vegetable organisms there present acting as the agents in intestinal putrefactions," marks an important advance beyond the results of the labors of SELMI, GAUTIER, POUCHET and BOUTMY. Part of these intestinal alkaloids are absorbed into the blood, further elaborated by the kidneys, and appear in the urine.

Professor BOUCHARD, at a recent meeting of the Société de Biologie, read an interesting and valuable paper on the toxic qualities of normal urine. In the light of the recent progress of physiological chemistry, briefly detailed in this paper, the results of Professor BOUCHARD's experiments are clearly intelligible. The fact of toxicity of the urine was established by the injection of specimens of urine into the veins of frogs and rabbits.

Following the injection of normal urine into the veins of a rabbit, BOUCHARD observed "contraction of pupils, slow respiration, muscular weakness, lowered temperature, abolition of reflexes, torpor," and death as the result of arrest of respiration. It is a well-known fact that 90 cubic centimètres of water for every kilogramme of its body-weight may be injected into the veins of an animal without the production of mechanical ef-

fects. In BOUCHARD's experiments, the quantity of fluid used was not the tenth of this amount, so that the effects were of a true toxic character.

BOUCHARD next attempted to determine the particular constituent to which the poisonous character was due. Without entering into the details of the experiment, it was found that urea, uric acid, kreatin, and the potassium salts, alone and combined, "though undoubtedly poisonous, were not so in the small quantities contained in the urine injected. He concludes that there are numerous poisonous principles present, which do not reside in one, but in several of the urinary constituents." The poisonous principles are not volatile.

Very recently, LEPINE and GUERIN have demonstrated that these alkaloid bodies are increased in various acute diseases. Thus in typhoid fever and pneumonia, the toxicity of the urine was greatly increased, while in the urine of diabetes, catarrhal jaundice, and cirrhosis with jaundice no increase of toxicity was observed.—*Journal of the American Medical Association.*

THE TREATMENT OF BROMIDROSIS OF THE FEET.

DR. J. S. STEWART thus writes in the *Edinburgh Medical Journal*, March, 1885:

Few affections of the skin are more disgusting or more difficult to treat successfully, by the ordinary methods, than fœtid sweating of the feet, with or without excessive secretion. The thickened skin over the heel and anterior ends of the matatarsal bones, seems to afford a very secure and ineradicable nidus for the as yet undifferentiated enzyme which induces fermentation with its fœtid products there. One form of treatment seems to be invariably successful, and therefore deserves to be much better known, viz., that devised by Hebra, which, he says,

never fails, and recommends to be used in all severe cases. Hebra employed the following ointment.

℞. Olei lini,
Emplastri plumbi liquefacti, equales partes.
M. ft. ung.

This he directed to be spread thickly over a piece of linen large enough to cover the sole and sides of each foot, — both feet, in the first place, to be carefully washed and dried. Pieces of linen rag well covered with the ointment he directed to be placed between the toes, so as effectually to separate them and secure thorough application of the ointment. Over this the sock or stocking could be worn with a light slipper, and patient allowed to pursue his or her ordinary calling. This dressing to be repeated every twelve hours for ten or twelve days. The foot not to be wetted after treatment has begun, but wiped, when necessary, with a dry cloth, or washed with dry bran or other mealy substance, should any part become dirty or caked with old ointment, etc.

Whether mild or severe, all cases are curable by it, and no other method seems to yield such a prompt and satisfactory result. To insure success, the whole of the skin of soles and sides of feet and toes must be tanned by the process and gradually thrown off as brown leathery exfoliations in from two to four weeks. All boots, shoes, slippers, etc., worn by patient should be discarded; because if worn again the patient is reinfected in three or four months, and gradually becomes as bad as at first. Stockings or socks should be carefully cleansed, and disinfected by heat or by steeping in a hot solution of perchloride of mercury (1 in 1,000 of water) for several hours before being washed. Neumann directs that Hebra's ointment and dressing should be changed once in three days for nine

days, that is, three times altogether, a method not to be relied on in many cases seen in this country.

What I have found to yield the most satisfactory result, in treating a tolerably long series of cases, is to have the feet thoroughly washed in hot water, then steeped for a few minutes in a solution of permanganate of potash of the strength of from four to six grains in the ounce of water. The feet are then dried, not to be again wetted until complete exfoliation of the tanned cuticle has taken place.

Hebra's lead plaster ointment is then thickly spread on strips of cloth about one and one-half inch broad, and the foot covered from the toes back over heel as high as the malleoli with these, arranged and applied like a scultetus bandage. Each toe should first be wrapped round with a strip of clean rag half an inch broad, and thickly spread with the ointment. This dressing should be renewed every twelve hours with fresh rag and ointment, for a period varying from ten to sixteen days, according to the severity of the case and the thickness of the heel skin. In most cases the odor will be very much diminished by the end of the third day, and will not be perceptible by the ninth. The shedding of the skin takes place *pari passu* with the growth of the new cuticle, and may not be completed until the end of the third or even of the fourth week.—*Quarterly Compendium of Medical Science.*

NEWS ITEMS.

The second meeting of the Committee of the American Medical Association, on organization of the Ninth International Medical Congress, will occur in New York on September 3d. The Congress will occur in Washington, D. C., in 1887.

Dr. John Ten Broek, of Paris, Ill., died on August 8, 1885, aged 77 years. He was one of the oldest practitioners of medicine in the State.

The American Dermatological Association held its Ninth Annual Meeting at Greenwich, Conn., on August 26th, 27th and 28th.

Professor Henry B. Sands has resigned his chair of Practice of Surgery in the College of Physicians and Surgeons of New York.

Menthol in twenty per centum solution is recommended as a local anæsthetic for mucous surfaces. It is said to be a good substitute for the hydrochlorate of cocaine, and is less expensive.

The Detroit Medical College and the Michigan College of Medicine, of Detroit, have been consolidated under the name of Detroit College of Medicine.

St. Paul and Minneapolis, Minnesota, each, has a medical college now.

A ROYAL PHYSICIAN.—Prince Ludwig Ferdinand of Bavaria, who is said to be a son-in-law of ex-Queen Isabella of Spain, and received the degree of Doctor of Medicine at Munich recently, is now engaged in the practice of medicine at Nymphenburg in Bavaria.

Dr. Oliver Wendell Holmes has just passed his seventy-sixth birthday.

The new building for the College of Physicians and Surgeons, of New York, will be located opposite the Roosevelt Hospital.

THE THIRD ANNUAL MEETING OF THE AMERICAN RHINOLOGICAL ASSOCIATION will be held at Lexington, Ky., October 6th, 1885. Papers and Discussions will be devoted exclusively to the Diseases of the Nasal Passages and their sequences.

LOCAL NEWS.

The Chicago Medical Society now holds its semi-monthly meetings in the Probate Court room, on Clark street, instead of in the Grand Pacific Hotel, where its meetings were held for several years.

The regular medical colleges of Chicago begin their winter course of lectures on the 22d day of September, this year.